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A

PRONOUNCING GAZETTEER

AND

GEOGRAPHICAL DICTIONARY

OF

THE PHILIPPINE ISLANDS,

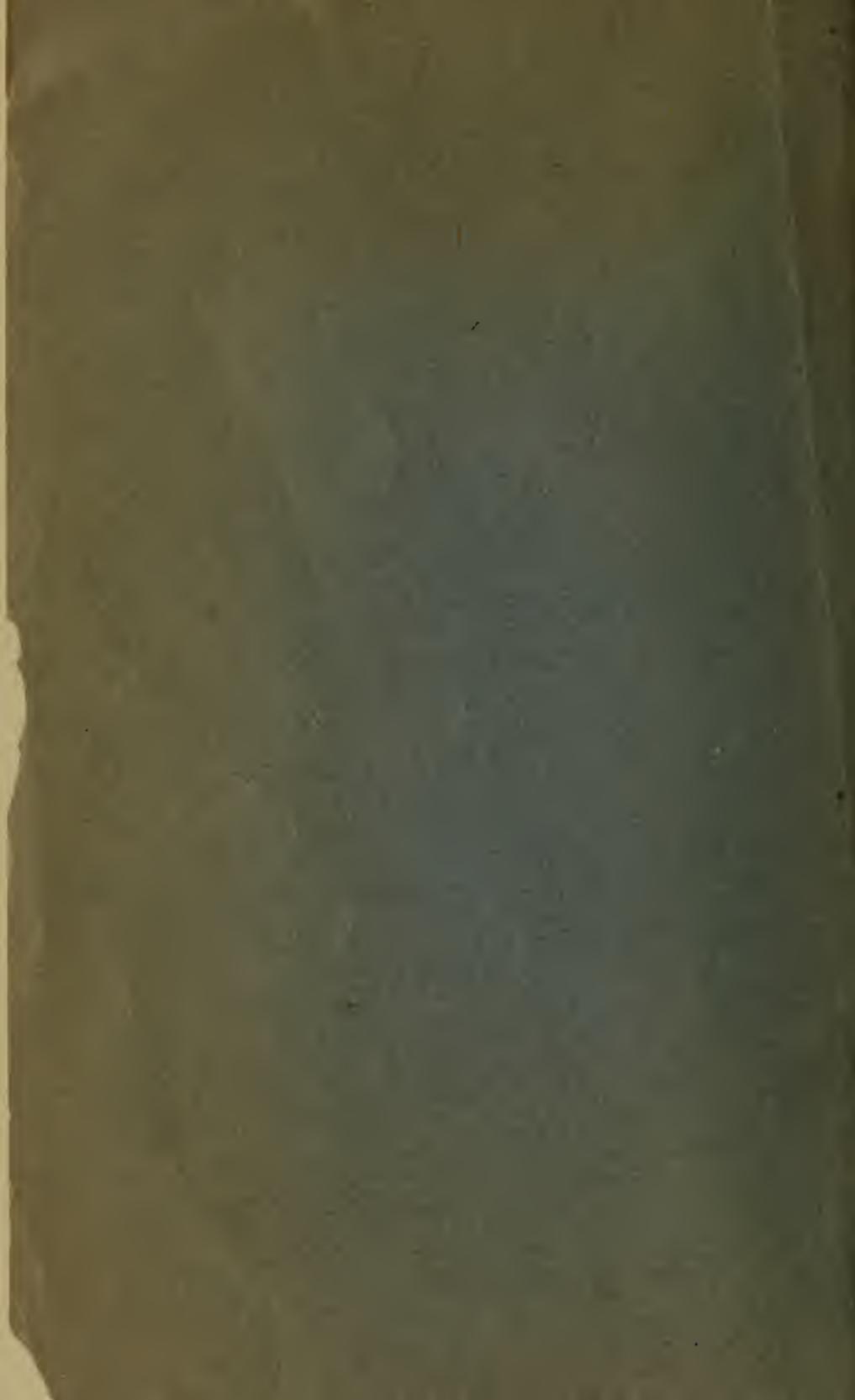
UNITED STATES OF AMERICA.

MAPS, CHARTS, AND ILLUSTRATIONS.

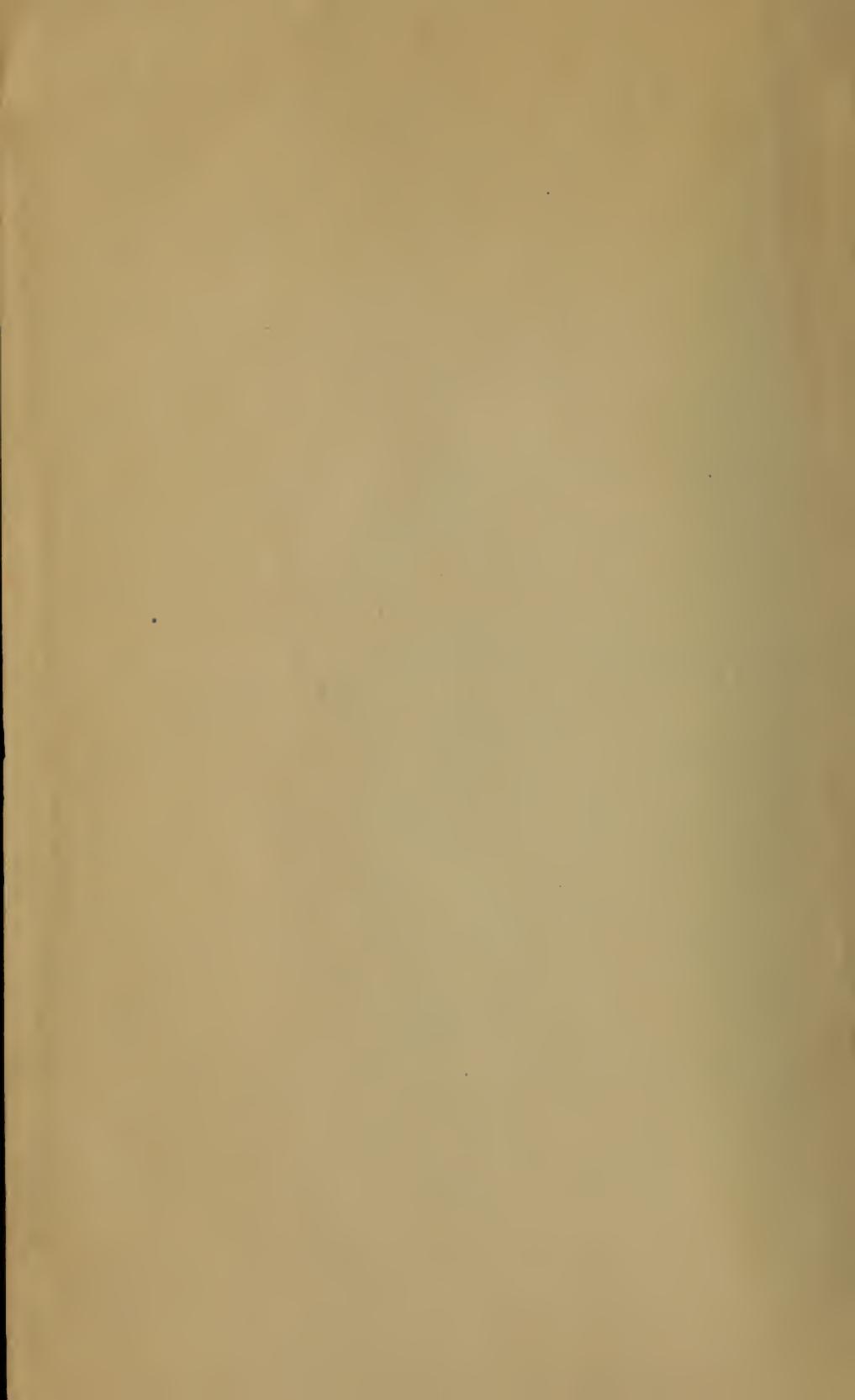
PREPARED IN THE DIVISION OF INDIAN AFFAIRS,
WARM DEPARTMENT

1902.

WASHINGTON:
GOVERNMENT PRINTING OFFICE
1902.



GAZETTEER OF THE PHILIPPINE ISLANDS.



U. S. Bureau of Insular Affairs.

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UNITED STATES OF AMERICA,

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INTRODUCTION.

The great number of inquiries addressed to the War Department from all parts of the United States calling for information regarding the Philippine Islands, has indicated that a printed compendium of such information would be practically useful to the American people. The present work is designed to furnish such information.

The standard literature relating to the Philippines at the time of American occupation was generally confined to books in Spanish, German, French, and Dutch, and largely of ancient date. The English books were usually translations, Admiralty surveys, trade statistics, and consular reports. The hydrographic data contained in Spanish and English charts and instructions and United States compilations from the same, were limited to the requirements of navigators only.

In the compilations of this work not only the existing literature but all available reports from military, naval, and civil officers, giving the observations and results of campaigns, expeditions, reconnaissances, etc., have been consulted. When this data was collected by provinces it was submitted to officers returning from the Philippine Islands to make corrections and additions from their personal knowledge and experience. Their replies were universally commendatory of the character and scope of the work and of its value for ready reference. In many instances their replies were accompanied by new material which was incorporated in the text.

A feature is the spelling and pronunciation of local geographic names. This subject has been given careful consideration. The value of letters affected by symbols of sounds is phonetically explained, as is also the etymology of words whose origin, whether foreign, Spanish, Tagálog, or native, is indicated. The origin of the names of places, in the various dialects of all the islands, is shown by the following abbreviations:

Sp. = Spanish.

Nat. = Native word common to more than one dialect.

Tag. = Tagálog.

Ver. = Vernacular, other than Tagálog.

Hisp. = Native, transformed into Spanish.

For. = Foreign.

The work thus completed contains the most recent and authoritative information, from official and other sources, respecting the Philippine (Archipelago) Islands, their geography, physical features, areas, communications, population, towns, resources, wealth, products, industries, commerce, finances, social economy, natural history, military occupation, and civil government, followed by an alphabetically arranged descriptive list of islands, provinces, districts, townships (pueblos), cities, towns, hamlets, ranges, mountains, peaks, volcanoes, rivers, seas, straits, gulfs, sounds, bays, lakes, promontories, capes, points, light-houses, and other mapped objects and places, numbering upward of 10,300, with maps, charts, and illustrations.

The encyclopedic features have reference only to information of a practical nature associated with the places described.

EXPLANATION OF THE ORTHOGRAPHY OF NAMES.

If we except some foreign names, especially the English names of places situated on the island of Palawan and surrounding seas, the orthography of the geographical names of the Philippine Archipelago is in the main Spanish. It is so in spelling and also in accentuation.

The Spanish colonists not only gave names in their own language to different places in the islands, but in writing the native words in Roman characters used, as was to be expected, the Spanish spelling and accent. *Alcántara*, *Nueva Écija*, *La Laguna*, *La Unión*, and many other names are genuine Spanish. On the other hand, *Luzón*, *Pampanga*, and *Bulacán*, illustrations of originally indigenous words with Spanish spelling and sound, are native words written as they sounded to the Spanish ear, therefore but the development into a Spanish form of the native words, as *Lusong* (*Luzón*), which means a rice mortar; *Kapangpangan*, a place where river banks abound; *Bulakan* (with the accent on the second syllable), a country where cotton is raised and grown.

A great number of native names, however, have been kept, although in several cases some differences may be observed between the native sound and the Spanish spelling, on account either of the location of accent or of subordinating the word to Spanish grammatical rules.

There is pending a controversy among Spanish writers and Filipino scholars, with whom a good many foreign authorities agree, in reference to the orthography of native names.

The contention of the latter is chiefly that **c** after any vowel, and before **a**, **o**, and **u**, must be superseded by **k**; **c** before **e** and **i** by **s**; **j** by **h**; **o** and **u** in diphthongs by **w**; **qu** by **k**.

Thus *Antique* must be *Antike*; *Abúcay* must be *Abúkay*; *Balábac* must be *Balábak*; *Loay* must be *Lway*; *Lalauan* must be *Lalawan*; *Cebú* must be *Sebú*; *Jalajala* must be *Halahaha*. As it is not the purpose to indulge in this linguistic discussion, it may be said in passing that the general sentiment of Americans in the islands favors the reform intended by the native writers, since such movement is harmonious with the value of letters in the English language and with the modern writing of Malayan words. English books and maps have already adopted it.

In this Gazetteer, however, the old Spanish orthography is generally retained, pending official action taken to implant the change referred to, not only because the Government publications follow that system, but also with the view of avoiding further confusion on the subject.

ACCENTUATION.

Some of the most general rules relating to Spanish accentuation are here set forth in a condensed way, so as to give an idea as to the proper place for accent marks, as follows:

I. All words ending in a vowel, or in **n** or **s**, which are accented on the last syllable must bear the accent mark on that syllable (Alcalá, Bacón, Alós), the rule being that the greater part of words ending in a vowel, or in **n** or **s**, are accented on the penultimate (Alfonso, Balbagán, Calamianes).

II. All words ending in a consonant other than **n** or **s** and which are accented on the penultimate must bear the accent mark (Abúyog, Apálit, Balábac), the rule being that the greater part of words ending in other consonants than **n** or **s** are accented on the last syllable (Aambil, Bagac, Dumanjug).

III. All words accented on a syllable previous to the penultimate must bear the accent mark (Alcántara, Príncipe).

We omit here many other rules, because the above-mentioned suffice to enable the reader to familiarize himself with the accentuation of the names contained in the Gazetteer.

KEY TO PRONUNCIATION.

Irrespective of having attached to each name its pronunciation by means of orthoepical representations, familiar to English-speaking people, there are given in the accompanying table the sounds of the letters of the Spanish alphabet, and of certain signs peculiar to native writing:

Letters.	Pronunciation and remarks.	Examples.
a	English a in father	Abra, Balábac.
e	English e in dress, benefit.....	Escalante, Itaves.
i	English i in ravine; the sound of ee in bee	Balanguingui.
o	English o in mote, gone; aw in dawn.....	
u	English u in flute; the sound of oo in root	Uborg, Ugamut.
y	When a vowel is equivalent to i	Lacy.
á	Must be pronounced with a deep gutteral sound.	
é		
í	English i in ice, tie when forming a diphthong	Agútay.
ó		
ú	As ey in they; or ei in eight when forming a diphthong	Sibuguey.
ai		
ay	As ey in they; or ei in eight when forming a diphthong	
ei		
ey	As ow in how when forming a diphthong.....	Lanao, Mauban.
ao		
au	As o in one, when forming a diphthong.....	Canahuan, Laoag.
oa		
ua	English b	Bontoc.
uá		Casolgan, Colasi, Culili.
b	Sounds like k before a, o, and u.....	Cervera (Sp.), Cinapuran (nat.).
c	Before e and i is soft like English s in native names, but	Chocolate, Chongos.
ch	sounds like th in Spanish names.	
ch	Is always soft as in church.....	
d	As in English.	
f		
g	Is hard before a, o, and u.....	Gapán, Golo, Gusá.
g	Sounds like English h before e and i.....	Gerona, Gimanoé.
g	ue and ui after g sound like e and i, respectively	Guernica, Guiguintó.
h	Is not pronounced in Spanish names	Horadada.
h	Is like English n in native names	Hagonoy.
j	Like English n	Janiuay, Jaro.
k	As in English.	
l		
ll	Sounds like the letters lli in the English million.....	Llana-Hermosa.
m	As in English.	
n		
ñ	Has the sound of the letters ni in the English pinion.....	San o Niño.
ñg	Sounds like ng in the English word singer; without the tilde sounds like ng in the word finger.	Mangaldán, Pantabangán.
p	As in English.	
q	Sounds like k. ue and ui after q sound like e and i respectively.	Quensitog, Quinabugan.
r	(Rolled more than in English, especially at the beginning of words and after l, n, and s.)	Rosario.
r		
r	Like English r between vowels.....	Aringay.
r	Both letters are to be distinctly sounded.	
s	As in sin.	
t	As in English.	
v		
w	As in English.	
x		
y	Like th in thin	Zaragoza.
z		

Reference may be made to the little care the Spaniards took in correctly pronouncing the nasal consonant *ñg* or simply *g*, and the deep vowels. For instance, *Balanga* is pronounced by Spaniards *bah-lahn'-gah* (the last a with a flat sound), and by the native is pronounced *bah-lang'-ach* (the last vowel with a deep and somewhat gutteral sound).

SIGNS RELATING TO ORTHOEPY.

The method of giving the pronunciation of the names in this Gazetteer by means of English signs and representations is explained in the following remarks:

1. Each name is separated into syllables, which represent the Spanish or native sound, as the case may be.

2. An acute accent is placed after the syllable which should be pronounced more forcibly than the others.

3. Whenever possible, the Spanish or native sound is represented by monosyllable words very common in English.

4. Otherwise the representation is made as follows:

a is represented by ah.

e by ay.

i by ee.

o by oh, au, or aw.

u by oo.

ai } by i.

ay } by i.

oa } by wah.

ua } by wah.

j by h.

g before e and i by h.

ll by ly.

ñ by ny.

5. In the English representations g is always hard, as in give; th must be pronounced as in thin, and ch as in chill.

6. When two or more names with the same spelling occur in succession, and the pronunciation of the first only is given, it is intended as a general rule that all shall be pronounced alike.

7. English names should be pronounced as in English.

ABBREVIATIONS USED IN ETYMOLOGIES AND DESCRIPTIONS.

a.=acres.
A.=Archipelago; *but only* in half-measure matter.
A. G. O.=Adjutant-General's Office.
C.=Cape; *but only after* a name, as Bojeador C.
cm.=centimeters.
cub. ft.=cubic feet.
cub. m.=cubic meters.
D. I. A.=Division of Insular Affairs.
D. P.=Division of the Philippines. (*See* N. P. and S. P.)
E.=east or eastern.
°F.; °C.
fms.=fathoms.
F. O.=Field Orders (military)
for.=foreign.
ft.=feet.
ft. B. M.=feet board measure.
geog. m.=geographical miles.
G. O.=General Orders (military).
grp.=group, after a name, as Batanes grp., and in the half-measure only.
g. w.=gross weight.
Hdqrs.=Headquarters, except in descriptive title of a province.
hectog.=hectogram.
hectol.=hectoliter.
Hisp.=native transformed into Spanish.
I.=Island; *but only after* a name, as Alabat I.
in.=inches.
kilo.=kilogram.
kilos.=kilograms.
l.=left.
lat.=latitude.
lbs.=pounds.
lon.=longitude.
m.=miles
mm.=millimeters.
Mt.=Mountain; *but only after* a name, as Apo Mt.
N.=north or northern.
nat.=native word common to more than one dialect.
naut. m.=nautical miles.
N. M.=Notice to Mariners.
N. P.=Department of North Philippines.
n. w.=net weight.
ozs.=ounces.
P. A.=Philippine Archipelago.
P. C.=Philippine Commission.
P. G. A.=The Provincial Government Act.
P. I.=Philippine Islands.
pop.=Population, as, pop., 55,300; *but* has a large Moro *population*, etc.
Pt.=Point; *but only after* a name, as Escardada Pt.
q. v.=quod vide, which see.
r.=right.
Riv.=River; *but only after* a name, as Agno Grande Riv.
S.=south or southern.
S.; SW.; N.; NE.; W.; etc.
S. O.=Special Orders (military).
S. P.=Department of South Philippines.
Sp.=Spanish.
sq. kms.=square kilometers.
sq. m.=square miles.
st. m.=statute miles.
Tag.=Tagalog.
ver.=Vernacular other than Tagalog.
W.=west or western.
yds.=yards.

TABLE OF TEMPERATURE.

[Fahrenheit compared with centigrade and Réaumur. In this table the centigrade and Réaumur readings are given to the nearest decimal.]

F.	C.	R.	F.	C.	R.	F.	C.	R.	F.	C.	R.
125	51.7	41.3	101	38.3	30.7	77	25.0	20.0	53	11.7	9.3
124	51.1	40.9	100	37.8	30.2	76	24.4	19.6	52	11.1	8.9
123	50.6	40.4	99	37.2	29.8	75	23.9	19.1	51	10.6	8.4
122	50.0	40.0	98	36.7	29.3	74	23.3	18.7	50	10.0	8.0
121	49.4	39.6	97	36.1	28.9	73	22.8	18.2	49	9.4	7.6
120	48.9	39.1	96	35.6	28.4	72	22.2	17.8	48	8.9	7.1
119	48.3	38.7	95	35.0	28.0	71	21.7	17.3	47	8.3	6.7
118	47.8	38.2	94	34.4	27.6	70	21.1	16.9	46	7.8	6.2
117	47.2	37.8	93	33.9	27.1	69	20.6	16.4	45	7.2	5.8
116	46.7	37.3	92	33.3	26.7	68	20.0	16.0	44	6.7	5.3
115	46.1	36.9	91	32.8	26.2	67	19.4	15.6	43	6.1	4.9
114	45.6	36.4	90	32.2	25.8	66	18.9	15.1	42	5.6	4.4
113	45.0	36.0	89	31.7	25.3	65	18.3	14.7	41	5.0	4.0
112	44.4	35.6	88	31.1	24.9	64	17.8	14.2	40	4.4	3.6
111	43.9	35.1	87	30.6	24.4	63	17.2	13.8	39	3.9	3.1
110	43.3	34.7	86	30.0	24.0	62	16.7	13.3	38	3.3	2.7
109	42.8	34.2	85	29.4	23.6	61	16.1	12.9	37	2.8	2.2
108	42.2	33.8	84	28.9	23.1	60	15.6	12.4	36	2.2	1.8
107	41.7	33.3	83	28.3	22.7	59	15.0	12.0	35	1.7	1.3
106	41.1	32.9	82	27.8	22.2	58	14.4	11.6	34	1.1	0.9
105	40.6	32.4	81	27.2	21.8	57	13.9	11.1	33	0.6	0.4
104	40.0	32.0	80	26.7	21.3	56	13.3	10.7	32	0.0	0.0
103	39.4	31.6	79	26.1	20.9	55	12.8	10.2			
102	38.9	31.1	78	25.6	20.4	54	12.2	9.8			

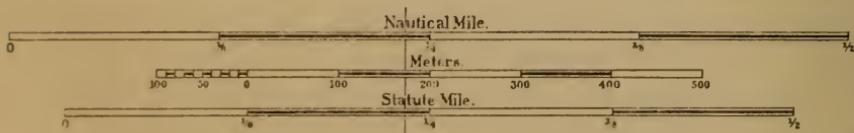
TABLE OF MEASURES OF LENGTH.

[For other terms and equivalents see Coinage, Weights and Measures, pp. 126, 127, 128.]

[1 kilometer=0.621 United States statute mile.]

kilos. st. m.	kilos. st. m.	kilos. st. m.
1= 0.621	8= 4.968	60=37,260
2= 1.242	9= 5.589	70=43,470
3= 1.863	10= 6.210	80=49,680
4= 2.484	20=12,420	90=55,890
5= 3.105	30=18,630	100=62,100
6= 3.726	40=24,840	
7= 4.347	50=31,050	

COMPARATIVE SCALE OF MILES AND METERS.



THE PHILIPPINE (ARCHIPELAGO) ISLANDS.

LOCATION.

The PHILIPPINE ISLANDS occupy the most N. part of the E. end of the geographical grand division known as the Eastern Archipelago in eastern Asia. Through the capital and chief emporium, Manila, they are the key to the commerce of the islands that border the steam routes between Japan and China and the Philippines, the Sulu Archipelago; the islands of the South Pacific, the coasts of Borneo, Celebes Sea and Islands, Molucca and Gillolo passages, Banda and Arafura seas, the coasts of Papua, or New Guinea, and Australia to the SE. and S., and Indo-China, Siam, Malay Peninsula, Java, and India, and countries beyond to the SW. and W. They lie entirely within the N. torrid zone. They received their present name from Ruiz López de Villalobos, one of the early discoverers, in honor of the Prince of Asturias, afterwards King Philip of Spain.

TIME CIRCUIT.

The United States, extending from 65° to 125° W. lon., is divided into 4 sections of 15° of lon., equal to 1 hour. The first section, known as "eastern standard time," starting at the seventy-fifth meridian, includes all the territory between the Atlantic coast and an irregular line drawn from Detroit, Mich., to Charleston, S. C. The second section, "central standard time," is used in all the country between the last-described line and an irregular line drawn from Bismarck, N. Dak., to the mouth of the Rio Grande. The third section, "mountain standard time," covers the country between the last-named line and one marking the W. borders of Idaho, Utah, and Arizona. The fourth section, "Pacific standard time," includes the remainder of the United States to and including the Pacific coast. Within each of these sections the time is uniform, and each differs from its nearest neighbor by 1 hour; that is to say, when it is 12 o'clock noon at Washington or at any other point in the territory of eastern time it is 11 a. m. in the central section, 10 a. m. in the mountain section, and 9 a. m. in the Pacific section, and so westward across the Pacific Ocean to the United States islands in the Pacific and onward, completing the circuit of the globe. The meridian of lon. 180° is the international date line, a day being dropped going westward or added going eastward; that is, Sunday becomes Monday, or vice versa, the moment the line is crossed.

When it is 12 noon, standard time, at Washington it is—

6.29 a. m. at	Honolulu.
2.40 a. m. next day at	Guam.
1.04 a. m. next day at	Manila.
2.18 a. m. next day at	Yokohama.
0.37 a. m. next day at	Hongkong.
11.55 p. m. at	Singapore.
10.19 p. m. at	Colombo.
8.01 p. m. at	Aden.
7.05 p. m. at	Cairo.
5.09 p. m. at	Paris.
7.01 p. m. at	Saint Petersburg.
5 p. m. at	London.

BOUNDARIES.

The archipelago is bounded on the N. by the China Sea, on the E. by the Pacific Ocean, on the S. by the Celebes Sea and Borneo, and on the W. by the China Sea. The nearest land on the N. is the island of Formosa, a dependency of Japan, 93 m. NW. of Y'Ami, the most N. of the Batanes group; on the E. the Pelew Islands (German), 510 m. off Mindanao; on the S. Ariaga (de la Silla Island), the most N. of the Carcaralong group (Dutch), 37 m. S. of the Saranganis, off Mindanao; on the SW. the extreme E. point of Borneo, 24 m. SW. of Sibutu; on the S. Balambangan, an island off the extreme N. coast of Borneo, 31 m. S. of Balabac; and on the W. Cochin China, 515 m. W. of Palawan. The nearest approach of the international dividing line between Asia and Oceania passes about 15° (900 naut. m.) E. of Batac Island, off the NE. coast of Sámar, in about lat. $12^{\circ} 40'$ N.

TREATY LIMITS.

“Spain” ceded “to the United States the archipelago known as the Philippine Islands, and comprehending the islands lying within the following line:”

NORTH.—“A line running from west to east along or near the twentieth parallel of north latitude [lat. $21^{\circ} 25'$ N., approximately; lon. 118° E. of Greenwich, in the China Sea], and through the middle of the navigable channel of Bachí, from the one hundred and eighteenth (118th) to the one hundred and twenty-seventh (127th) degree meridian of longitude east of Greenwich.” [Length of N. line $9^{\circ} = 540$ geog. m. = $625\frac{1}{2}$ st. m.]

EAST.—[NE. angle of boundary in the Pacific Ocean, lat. $21^{\circ} 25'$ N. approximately; lon. 127° E.] “Thence along the one hundred and twenty-seventh (127th) degree meridian of longitude east of Greenwich to the parallel of four degrees and forty-five minutes ($4^{\circ} 45'$) north latitude.” [Length of E. line $16^{\circ} 40' = 1,000$ geog. m. = 1,158 st. m.]

SOUTH.—[SE. angle of boundary in the Pacific Ocean, lat. $4^{\circ} 45'$ N., lon. 127° E.] “Thence along the parallel of four degrees and forty-five minutes ($4^{\circ} 45'$) north latitude to its intersection with the meridian of longitude one hundred and nineteen degrees and thirty-five minutes ($119^{\circ} 35'$) east of Greenwich.” [Length of line $7^{\circ} 25' = 445$ geog. m. = $515\frac{1}{2}$ st. m.]

WEST.—[Lat. $4^{\circ} 45'$ N., lon. $119^{\circ} 35'$ E., the E. of the SW. angles in the boundary, in the Celebes Sea.] “Thence along the meridian of longitude one hundred and nineteen degrees and thirty-five minutes ($119^{\circ} 35'$) east of Greenwich to the parallel of latitude seven degrees and forty minutes ($7^{\circ} 40'$) north.” [Length of W. line $2^{\circ} 55' = 175$ geog. m. = 192 st. m.]

SOUTH.—[Lat. $7^{\circ} 40'$ N., lon. $119^{\circ} 35'$ E., the central SW. angle in the deflected line NE. of Borneo, in the Sulu Sea.] “Thence along the parallel of latitude seven degrees and forty minutes ($7^{\circ} 40'$) north to its intersection with the one hundred and sixteenth (116th) degree meridian of longitude east of Greenwich.” [Length of S. line $3^{\circ} 35' = 215$ geog. m. = 249 st. m.]

WEST.—[Lat. $7^{\circ} 40'$ N., lon. 116° E., the extreme SW. angle, in the China Sea.] “Thence by a direct line to the intersection of the tenth (10th) degree parallel of north latitude with the one hundred and eighteenth (118th) degree meridian of longitude east of Greenwich.” [Length of W. line deflected NE. 205 st. m.]

WEST.—[Lat. 10° N., lon. 118° E.] “And thence along the one hundred and eighteenth (118th) degree meridian of longitude east of Greenwich to the point of beginning.” [Lat. $21^{\circ} 25'$ N., lon. 118° E; length of W. line $11^{\circ} 25' = 685$ geog. m. = 788 st. m.] [Treaty of peace, December 10, 1898, between the United States of America and the Kingdom of Spain, at Paris.] “As a voluntary consideration, the United States paid to Spain the sum of twenty million (20,000,000) dollars.” [Art. III, Treaty.]

Spain also relinquished to the United States all title and claim to the islands of Cagayán Sulu and Sibutu and their dependencies and all others belonging to the Philippine Archipelago and lying outside the lines described in Article III of that Treaty, the United States paying the sum of \$100,000. [Treaty of cession of islands outside of the lines defined in Treaty of Peace December 10, 1898. Sole article, Washington, November 7, 1900.]

AREA.

The Philippine Islands within the Treaty lines of boundary have an aggregate area of 724,329 geog. m., or, in st. m.:

Total land and water	832,968
Land	127,853
Water	705,115

The land area lies between parallels $21^{\circ} 10'$ N. (Y'Ami Island, the most N. of the Batanes group) to $4^{\circ} 40'$ N. (the extreme S. point of Balut Island of the Sarangani Islands, S. of Mindanao), and meridians $116^{\circ} 40'$ (W. coast of Balabac Island) and $126^{\circ} 34'$ (Sancó Point) lon. E. of Greenwich, or a total of 1,010 naut. or 1,152 st. m. from N. to S. and $59\frac{1}{4}$ naut. or 682 st. m. from W. to E.

The land superficies within the limits defined is greater than the combined area of the States of New York, New Jersey, Pennsylvania, and Delaware (104,970 sq. m.), nearly twice as large as the 5 States of New England (66,425 sq. m.), and larger than the New England States, New York, and New Jersey (123,860 sq. m.).

The Treaty line of boundary of the islands of the Philippines superimposed upon a map of the United States would appear about as follows: Beginning at the NE. angle, being the point of intersection of lat. 45° N. and lon. 75° E., near Ogdensburg, N. Y., on the St. Lawrence River; thence following the meridian of 75° E., passing the Capes of the Delaware to the SE. point of intersection at lat. 28° N. and lon. 75° E., near Palatka, Fla.; thence following the parallel of 28° W. to the SW. angle near the point of intersection of lat. 28° N. and lon. 84° E., near Apalachicola, Fla.; thence along said lon. N., passing immediately W. of the W. boundary of Ohio to the NW. angle at the intersection of lat. 45° N. and lon. 84° E., immediately S. of Mackinaw, Mich., on the straits connecting Lakes Michigan and Huron; thence along lat. 45° N. to the place of beginning. Within this area lies all that part of New York W. of Utica, New Jersey W. of Trenton, all of Pennsylvania, Delaware, Maryland, Virginia, West Virginia, North Carolina, South Carolina, Georgia, northern Florida, eastern Tennessee, eastern Kentucky, all of Ohio, the E. half of the peninsula of Michigan, and nearly the whole of Ontario, Canada.

The area of the archipelago is 7,000 sq. m. larger than that of the British Isles (120,973 sq. m.), within 20,000 sq. m. of that of the islands of Japan (147,649 sq. m.), within 7,000 sq. m. of that of Prussia, and ten times that of the Netherlands, the possessor of the extensive domain among the islands and groups to the SE., S., and SW. of the Philippines.

Within this expansive area of the earth's surface, in general, in the N. part lie the Batanes and Babuyanes groups, 8 of them important, separated by the Bachi Channel from the Japanese island of Formosa, at a distance of 93 m. to the NW.; to the S. lies the great island of Luzón, with the adjacent large islands of Polillo and Catanduanes on the Pacific side and Marinduque, Burias, Ticao, and Masbate off its Visayan seashores; to the SW. of Luzón extends the large island of Mindoro, forming, with the islands of Busuanga, the Calamianes, Palawan (Paragua), and Balábac, the great W. chain of the archipelago between Luzón and the continental island of Borneo; to the SE. of Luzón lies the island of Sámar, to the W. of which is Leyte and continuing toward the W. the other great islands of the Visayan group, Bohol, Cebú, Negros, and Panay, and the smaller islands of Sibuyán, Romblón, Tablas, Guimarás, the latter near Panay, and Siquijor, S. of Negros. Continuing S., along the E. side of the archipelago is Mindanao, in area one of the two most important islands of the entire group. To the SW. of Mindanao and very close to its shore is Basilan, the connecting link in the important chain between the mainland of the Philippine Archipelago and the E. coast of the great island of Borneo through the Sulu and Tawi Tawi and other groups of the American Sulu Archipelago. Between this E. and W. chain, scattered over the N. waters of the Sulu Sea, are the Cuyos and Cagayanes groups and the Palawan island of Dumarán.

List of islands and areas.

[Main islands, areas, mainland, dependent islands, number of islands in grand territorial divisions; also subdivided by provinces, areas, mainland, dependent islands and their number.]

Grand territorial divisions.	Area.	Main-land.	Dependent islands.	
	Sq. m.	Sq. m.	Sq. m.	Number.
Luzón.....	44,235	43,075	1,160	311
Marinduque.....	681	667	14	13
Mindanao.....	46,721	45,559	1,162	258
Mindoro.....	4,108	4,050	58	26
Palawan (Paragua).....	5,037	4,579	458	335
Sulu Archipelago.....	1,029	520	509	188
Visayan Islands.....	25,302	23,411	1,891	507
Unassigned.....	740	.....	740	145
Total.....	127,553	121,861	5,992	1,583

List of islands and provinces, mainland and dependent islands, and areas.

Grand territorial divisions.	Area.	Main-land.	Dependent islands.	
	Sq. m.	Sq. m.	Sq. m.	Number.
LUZON.				
Provinces.				
Total.....	44,235	43,075	1,160	311
1. Abra.....	1,484	1,484	.....	.....
2. Albay.....	1,711	899	98	4
a. Catanduanes.....	.....	704	10	17
3. Aíños Camarines.....	3,161	3,092	69	83
4. Bataán.....	436	434	2	1

List of islands and provinces, mainland and dependent islands, and areas—Continued.

Grand territorial divisions.	Area.	Main-land.	Dependent islands.			
LUZON—continued.						
Provinces—Continued.						
5. Batangas.....	Sq. m. 1,108	Sq. m. 1,080	Sq. m. 28	Number. 8		
6. Benguet.....	990	990				
7. Bontoc.....	480	480				
8. Bulacán.....	841	841				
9. Cagayán.....	5,291	5,022	9	8		
a. Babuyanes.....			179	24		
b. Batanes.....			81	14		
10. Cavite.....	610	510	100	7		
11. Ilocos Norte.....	1,265	1,264	1	4		
12. Ilocos Sur.....	491	490	1	2		
13. Infanta.....	877	472	111	21		
a. Polillo.....			294	1		
14. Isabela.....	5,395	5,394	1	2		
15. Laguna.....	752	750	2	4		
16. Lepanto.....	1,232	1,232				
a. Quiaigán.....						
17. Manila (municipality).....	20	20				
a. Corregidor.....	4		4	5		
18. Nueva Ecija.....	3,840	3,840				
19. Nueva Vizcaya.....	1,075	1,075				
20. Pampanga.....	2,209	2,209				
21. Pangasinán.....	1,316	1,316				
22. Príncipe.....	1,218	1,216	2	3		
23. Rizal.....	1,048	1,026	22	3		
24. Sorsogón.....	675	663	12	16		
25. Tárlac.....	1,295	1,295				
26. Tayabas.....	2,334	2,250	84	8		
27. Unión.....	867	867				
28. Zambales.....	2,210	2,160	50	76		
MARINDUQUE.						
1. Province.....	681	667	14	13		
MINDANAO.						
Total.....	46,721	45,559	1,162	258		
1. Basilan.....	354	304	50	56		
2. Cotabato.....	8,344	8,332	12	9		
3. Dapitan.....	2,386	2,386				
4. Dávao.....	9,171	8,976	195	25		
5. Lanao.....	3,900	3,900				
6. Misamis.....	5,879	5,764	115	5		
7. Surigao.....	13,201	12,539	662	83		
8. Zamboanga.....	3,486	3,358	128	80		
MINDORO.						
1. Island.....	4,108	4,050	58	26		
PALAWAN (PARAGUA).						
Total.....	5,037	4,579	458	135		
1. Palawan (Paragua).....	4,726	4,368	358	98		
2. Balabac.....	264	168	96	23		
3. Cagayán de Sulu and St. Michaels Islands.....	47	43	4	14		
SULU ARCHIPELAGO.						
Total.....	1,029	520	509	188		
1. Balanguingui (group).....	38		38	19		
2. Pangutaran (group).....	72		72	14		
3. Sulu (Jolo) (group).....	380	333	47	29		
4. Tapul (group).....	77		77	38		
5. Tawi Tawi	462	187	275	88		
VISAYAN ISLANDS.						
Total.....	25,302	23,411	1,891	507		
1. Bohol.....	1,614	1,400	214	59		
2. Cebú.....	1,782	1,668	114	29		
3. Leyte.....	4,214	3,872	342	40		
4. Masbate:						
a. Burias.....	268	258	19	12		
b. Masbate.....	1,315	1,230	85	46		
c. Ticao.....	149	140	9	8		

List of islands and provinces, mainland and dependent islands, and areas—Continued.

Grand territorial divisions.	Area.	Main-land.	Dependent islands.	
	Sq. m.	Sq. m.	Sq. m.	Number.
VISAYAN ISLANDS—continued.				
5. Negros Occidental	3,112	3,105	7	11
6. Negros Oriental	1,742	1,734	8	3
7. Panay				
8. Antique	1,310	1,333	7	6
9. Capiz	1,661	1,643	18	30
10. Iloilo	2,102	1,776	326	80
11. Romblón	515	54	461	32
12. Samar	5,488	5,198	290	148
UNASSIGNED.				
Total	740	740	145	
1. Calamianes (group)	677	677	98	
2. Cuyos (group)	63	63	47	

The areas of islands and provinces given in the above table have been carefully measured and computed from the best sources of information, Spanish, British, and American. In regard to the dependent islands, in other authorities the number ranges from 948 counted on small-scale to 1,725 on large-scale charts. The number given in the above table is taken not only as charted, but the islands are named and described. The larger dependent islands and a vast majority of the smaller ones have not only been measured but their area is given. In both cases the above list is the best and most reliable compiled from the material now at hand.

As evidence of the incongruity of areas given in accepted authorities it should be stated that the *Atlas de Filipinas* (Senate Doc. No. 171, Fifty-sixth Congress, first session) gives Luzón 122,346 sq. kms., or 47,238 sq. m. The Spanish census of 1887 gives Luzon 96,226 sq. kms., and the Batanes and Babuyanes groups 620 sq. kms., making 96,842 sq. kms., equal to 37,210 sq. m., the Gazetteer figures, including 311 dependent islands, being 44,235 sq. m.

In the case of Mindanao this same atlas accredits that island with 93,854 sq. kms., or 36,237 sq. m. The Spanish census of 1887 gives this island 99,450 sq. kms., equal to 38,250 sq. m. The Gazetteer figures, as shown in the accompanying tables, give Mindanao, including the mainland and 258 dependent islands, 46,721 sq. m.

The great island of Samar is credited by the atlas referred to with 13,054 sq. kms., or 5,040 sq. m. The official Spanish census gives Samar 13,471 sq. kms., or 5,181 sq. m. The Gazetteer figures give the mainland 5,198 sq. m. and 148 dependent islands 290 sq. m., or a total of 5,488 sq. m.

The atlas referred to puts the entire area of the archipelago at 309,615 sq. kms., or 119,542 sq. m. The Spanish census of 1887 gives the figures at 288,166 sq. kms., or 110,064 sq. m. The carefully figured aggregate and itemized areas tabulated in this Gazetteer show 127,853 sq. m.

Until scientific computations based upon actual surveys and not continued speculation are available, the Gazetteer figures may be regarded at least as an approximation of accuracy and the best presented.

Nearby colonial possessions of other nations.

[Comparative view of territories and populations possessed by the Western nations in the regions of the globe surrounding the Philippine Islands.]

	Area.	Population.
UNITED STATES: Philippine Islands.....	<i>Sq. m.</i> 127,853	6,975,073
GREAT BRITAIN.....	112,002	6,082,310
Straits Settlements.....	1,472	512,342
Protected native states.....	26,500	418,527
Borneo.....	84,000	4,930,000
Hongkong, China ^a	30	221,441
FRANCE (Indo-China).....	243,240	16,600,000
Tonkin	50,190	7,500,000
Anam and Lou	125,480	5,400,000
Cochin China	67,570	3,700,000
PORUGAL: Macao	30	78,000
GERMANY.....	10,318	148,200
Kiau Chou.....	180	(^b)
Marshall Islands.....	158	13,000
Caroline Islands.....	370	33,000
Pelew Islands.....	190	3,000
Marianas Islands.....	420	10,200
Solomon Islands.....	9,000	89,000
NETHERLANDS (East Indies).....	628,000	33,892,000
Java and Madura.....	50,500	25,700,000
Sumatra	184,000	3,450,000
Borneo.....	212,700	1,180,000
Celebes.....	71,400	1,998,000
Moluccas.....	43,800	400,000
Lesser Sunda Islands	65,600	1,164,000

^a Hongkong includes 210,953 Chinese.

^b Seat of sphere of influence.

PHYSICAL FEATURES.**MOUNTAINS.**

In general the physical structure of the Philippine Archipelago as to mountains belongs to the succession of lofty ranges of volcanic origin which form the circuit and watersheds of the Pacific basin of the earth's surface. While the larger islands have defined systems of their own, by means of submarine ranges these are brought into harmony with the general mass of the archipelago. Mount Irada, 3,667 ft. in height, in Batán of the Batanes, and Camiguín, 2,793 ft., in Babuyanes, are the outlying summits of the Cordillera del Norte on the N. The summits of Marinduque, Burias, Masbate, and Ticao are the outcropping of the hidden connecting ranges between the peninsula of Luzon and the systems of the Visayan group, continued in the lofty Cordilleras of Mindanao, to the SE., and with less elevation in the hills of Basilan and the larger islands of the Sulu Archipelago, to the SW. From Mindoro through the Calamianes and the long, narrow mainland of Palawan another series terminates in the Sierra Empimada, with its peak of Balábac in the extreme SW. of the possession of the United States.

The mountain system of Luzón consists of 3 large ranges, the nucleus of which is the Caraballo Sur, its highest peaks being Mount Pagsán, 7,330 ft., at the intersection of the boundaries of Cagayán, Abra, and Ilocos Norte, and Santo Tomás, 7,418 ft., in Unión. These ranges are the Caraballos Occidentales, which runs N. and S., dividing into the Cordillera Central and Cordillera Norte, and traversing the provinces of northern Luzón W. of the Cagayán Grande River. The Sierra Madre, or Pacific coast range, begins at the Caraballos de Baler, NE. of the Caraballo Sur, and continues in a NE. trend, forming a chain from the Caraballos de Baler to Cape Engaño, the extreme NE. point of Luzón, crossing Isabela, Príncipe, and Cagayán provinces. This is the longest continuous range in the archipelago. The Mamparan branch trends toward the N. into Nueva Vizcaya.

The ranges of the E. and SE. provinces, of less elevation, extend from Caraballos de Baler to the Strait of San Bernardino through the provinces of Laguna and Tayabas, thence forming the central ridge of the entire peninsula to the SE. through Ambos Camarines, Albay, and Sorsogón, culminating in the towering volcanoes of Mayón or Albay, 8,274 ft. high, and Bulusan, 5,100 ft. high, on the strait named. This range has a number of celebrated peaks fully described elsewhere.

The Zambales range, starting at Cape Bolinao, the extreme NW. point of Luzón, follows closely the China Sea coast to the end of the peninsula of Bataán, fronting Corregidor on Manila Bay. Pinalobo, one of its peaks, reaches a height of 6,137 ft.

The Tagaytay range traverses the Cavite and Batangas boundary, and forms, with the Maquíling, one of the systems in southern Luzón, Maquíling Summit being 4,783 ft. high. The volcano of Taal, in Bombón Lake, is part of the Tagaytay system.

The mountain system of Mindoro takes its origin in Mount Haleón in the N., 8,865 ft. high, and sends out 3 ranges, the NW. terminating in Calavite Summit, the landmark of navigators passing between Mindoro Strait and Manila Bay; the E. from Lake Naújan, paralleling the Pacific coast the entire distance S.; the W. following the Mindoro Strait or W. coast to Buruncan Point, in the extreme S.

The island of Negros is traversed by a high range from NW. to SE., dividing it into two parts so completely that each forms a province. The volcano of Canlaón, or Malaspina, 4,000 ft. high, is a conspicuous feature.

The island of Panay has a single range from N. to S. along its entire course, separating the province of Antique from Cápiz and Iloílo, and reaching an altitude of 7,267 ft. About midway it sends a spur to the E., which forms the boundary between Cápiz and Iloílo. There are many notable peaks.

The island of Leyte is without mountains of importance.

The system of Mindanao forms 4 distinct ranges, the E. in Surigao following the trend of the Pacific coast; the central-eastern from Butúan, on the N. coast, extending S. and forming the watershed of the great rivers Agusan on the E. and Pulangui on the W., and also the boundary between Surigao and Misamis and Lanao; the central-western range, leaving the latter at the great volcano Apo, 10,312 ft. high, follows the N. boundary of Cotabato from SE. to NW. until it intersects the W. range, which begins at Balato Point, the W. head of Iligan Bay, and takes a course SW., with Malindang, 8,697 ft., its

highest point, and thence the entire length of Zamboanga Peninsula, ending on the shore of Basilan Strait to rise again in the larger islands of Sulu.

VOLCANOES.

The distribution of the igneous rocks of the Philippine Islands indicates the prevalence of a number of volcanic belts. When compared with those zones of subterranean activity which constitute such a dominant feature of the Malaysian groups, it becomes almost conclusive that the volcanic structure of the Philippine Islands must bear an important relation to that of the entire region.

There are 50 volcanoes in the Philippine Islands, 20 of these being more or less active and 30 extinct or dormant, as follows:

Active and solfataric volcanoes.

Name.	Province.	Approximate—		Height in feet.	Rock. ^a	Date of eruption.
		Latitude.	Longitude E. of Greenwich.			
Babuyán Claro...	Batanes	19 30	121 56			1831, 1860.
Camiguín de Babuyanes...	do	18 55	121 52			Solfataric.
Didiéá	do	19 2	122 9	700		1856 to 1860.
Cagua or Caua...	Cagayán.....	18 13	122 4	3,920		Solfataric in 1860.
Taal	Batangas.....	14 2	120 57	1,050	Andesite ^b ..	1709, 1715, 1716, 1731, 1749, 1754, 1808, 1873.
Banájao or Majaíjay...	Laguna.....	14 2	121 27	7,382	Andesite ^c ..	1730.
Mayón or Albay...	Albay	13 16	123 39	8,970	Andesite ^b ..	1616, 1766, 1800, 1814, 1827, 1835, 1845, 1846, 1851, 1853, 1855, 1858, 1868, 1871, 1872, 1873, 1881, 1885, 1886, 1887, 1888, 1890, 1891, 1892, 1893, 1895, 1896, 1897, 1900.
Bulusan...	Sorsogón	12 47	124 1			1852. Solfataric.
Guirón (Biliran Island).	Leyte.....	11 32	124 28		Andesite ^d ..	Solfataric.
Kasiboi or Casulangojan...	do	10 55	124 58		Andesite ..	Do.
Dunán	do	10 54	124 53		Andesite ^e ..	Do.
Alivancia	Palawar	10 30	119 48			Do.
Talasíquin	do	10 30	119 48			Do.
Cañalón	Negros Oriental	10 25	123 6	8,192	Andesite? ^f ..	1866, 1893.
Magasút	do	9 15	123 9		Andesite? ^f ..	Solfataric.
Camiguín de Mindanao.	Misamis	9 12	124 42	1,950	Andesite ^g ..	1871, 1875.
Macaturin, or Pollock, or Su- jut, or Ilana.	Cotabato	7 36	124 26			1765, 1856, 1865, 1871.
Apo or Dávao...	Dávao	7 3	125 17	10,311	Andesite ^b ..	Solfataric.
Sangñí or San- gír (Baiut Is- land?).	do	5 25	125 19	3,117		1641.
Sulu.....	Sulu.....	16 5	120 58		Basalt? ^f ..	1641.

^a The queries indicate that the composition of the volcano is inferred from specimens collected near it, but not on it.

^b Oebbeke.

^c v. Drasche.

^d Abella.

^e Roth.

^f Becker.

^g Renard.

^b Velain.

^h Uncertain.

Extinct or dormant volcanoes.

Name.	Province.	Approximate—		Height in feet.	Rock.
		Latitude.	Longi- tude.		
Datá	Lepanto	16° 57'	120° 55'	7,364	Trachyte? ^a
Arayat	Pampanga	15° 13'	120° 42'	2,880	Andesite, ^b
Pinatubo	do	15° 9'	120° 19'	6,050	
Butílao	Bataán	14° 43'	120° 21'	4,376	Andesite? ^c
Nagoulat or Mariveles	do	14° 31'	120° 26'	4,678	Andesite? ^c
Corregidor	do	14° 23'	120° 32'	640	Andesite, dacite, ^c
Pico de Loro	Cavite	14° 13'	120° 36'	2,270	Andesite? ^c
Talim	Rizal	14° 20'	121° 13'	1,519	Basalt, ^c
Maquiling	Laguna	14° 8'	121° 10'	3,724	Basalt, ^c
Cristóbal	do	14° 3'	121° 24'	5,288	Basalt? ^c
Malaráyat and Soson-cambing	Batangas	13° 58'	121° 11'		Andesite? ^b
Tombol	do	13° 49'	121° 10'		Andesite? ^b
Ambil	Mindoro	13° 48'	120° 16'	2,500	
Lobóo	Batangas	13° 39'	121° 16'	3,451	Andesite? ^b
Labo	Ambos Camarines (Norte)	14° 1'	122° 46'	5,092	Andesite, ^a
Colasi	do	13° 58'	122° 59'		Andesite, ^c
Isareg	Ambos Camarines (Sur)	13° 41'	123° 21'	6,450	Andesite, ^c
Iriga	do	13° 26'	123° 26'	3,976	Basalt and andesite, ^a
Malinao	Albay	13° 26'	123° 34'		Basalt, ^c
Masaraga	do	13° 18'	123° 35'	4,442	Basalt, ^c
Poedol or Bacón	Sorsogón	13° 5'	123° 54'		
Mainit or Sapongan	Surigao	9° 28'	125° 33'	1,115	
Cotabato or Távirán	Cotabato	7° 6'	124° 18'		
Cagayán de Sulu	Balábac	6° 59'	118° 30'		
Magzolo	Dávao	6° 19'	125° 6'		
Matutum	do	6° 11'	125° 10'		
Malibató	do	6° 8'	125° 2'		
Burulan or Sarangani	do	5° 42'	125° 18'		
Balut or Sanguil (?)	do	5° 24'	125° 20'	3,117	

^av. Drasche.^bOebbeke.^cBecker.^dRoth.

MINERAL SPRINGS.

The islands abound in minero-medicinal waters, of temperatures from cold to thermal of all degrees to boiling. Of these 50 have been analyzed in Abra, Albay, Ambos Camarines, Bataán, Batangas, Benguet, Bulacán, Ilocos Sur, Laguna, Lepanto, Nueva Écija, Pangasinán, Rizal, Tárlac, and Tayabas, in Luzón; Cebú in Visayas, and Cotabato in Mindanao. Besides these 117 are well known, but not analyzed, in all parts of Luzón, Mindoro, Marinduque, Sámar, Calumianes, Panay, Leyte, Cebú, Negros, Bohol, Panglao, Siquijor, and Mindanao. The medicinal properties and curative effects of these waters are well known and patronized among the natives, their properties being:

SULPHUR, at Aparri, Cagayán, Luzón, and many other localities, rivaling, according to analyses, the celebrated springs of Arkansas and Virginia in the United States, Eaux-Bonnes and Aix-la-Chapelle in Prussia, and Harrowgate in England.

SALINE, at Mariveles, in Bataán, opposite Manila, and other points, containing salts of lime, magnesia, soda, iron, iodine, and bromine, equaling Saratoga, United States; St. Catherine, Canada; Kissingen in Bavaria, and Wiesbaden in Baden Baden.

ALKALINE, the celebrated springs at Tívi in Albay, Pásig in Rizal, near Manila, and in many of the islands, containing salts of soda, potash, lime, magnesia, lithia, and other properties equaling Vichy in France and Heilbrunn, Germany.

PURGATIVE, at Dáet, Ambos Camarines and Los Baños, Laguna, 35 miles by lake from Manila, the most famous of all and the resort of

thousands; the waters being strongly impregnated with sulphate of soda, magnesium, and sulphates, as at Seidlitz and Carlsbad, Bohemia.

CHALYBEATE, containing salts of iron and of arsenic, as the famous Spa of Belgium, and rivaled by the springs of Lemery, in Batangas, Luzón, and the waters of several of those of Los Baños in Laguna.

RIVERS.

The large islands of the archipelago have extensive fluvial systems, determined by the great mountain ranges. That of Luzón is represented by 4 streams and their drainage basins.

The GRANDE DE CAGAYÁN flows 165 m. N. in a direct line, its valley fronting 70 m. on the China Sea on the N. With its great tributaries the Magat, Bangag, and Siffu, and a network of smaller affluents reaching out E. and W. 97 m., it drains the enormous area of 16,000 sq. m. from the provinces of Príncipe and Nueva Écija in lat. 16° to lat. $18^{\circ} 30'$ N., or the entire NE. half of the great island.

The AGNO GRANDE drains the narrow intermountain areas of Benguet and the central valleys of Nueva Écija, Pangasinán, and Tárlac, falling into the Lingayén Gulf.

The ABRA, receiving its tributaries from the Cordilleras of Lepanto, Bontoc, and Abra, enters the China Sea across the narrow intervening strip of Ilocos Sur.

The GRANDE DE LA PAMPANGA, with the Chico de la Pampanga and a number of smaller tributaries, carries the abundant rainfall of the Caraballo Sur across the broad, fertile, and populous valleys of Nueva Écija, Pampanga, and Bulacán, and has its outlet in Manila Bay by means of an extensive network of delta channels and a score of mouths.

Among the minor drainage basins of Luzón may be mentioned the Cáuit, of Ilocos, Norte; the Pásig, of Rizal; the Bicol of Ambos Camarines; and the Imus, in Cavite.

The lakes—Laguna de Bay, draining 3 provinces, having its sea outlet through the Pásig, and Bombón or Taal, with its drainage through the Pansípit—form a distinct system between the Pacific Ocean and Manila Bay.

MINDORO has 60 rivers known and the important Lake Naújan, all rising in the central range and falling into the sea, but forming no distinctive systems.

SÁMAR has 26 principal rivers, all rising in the central summits and after receiving innumerable small tributaries entering the sea by the nearest fall of the land, the most important being the Lagúan in the N., Orás, Matinao, Gabasan, and Suribao on the E., and Calbiga and Bac-hao Bañghahon, the largest in length and volume, on the W.

PANAY, the river taking the name of that island, is one of the finest in the archipelago, comparing in volume with the Grande de Cagayán and Grande de Mindanao. It drains the basin in the N. through 5 large tributary currents. From Paintan 6 m. by land and twice that distance by river, from its mouth it is upward of 340 ft. wide. The Jalaur, another fine river, drains Iloilo. The Aclán, Ibajay, Sibalón, and numerous streams of less dimensions enter the sea through their own mouths.

NEGROS forms 2 distinct sheds, one to the E. and the other to the W., defined by the dividing range.

The DÁÑAO, extending but 10 m. in direct line from the coast to its source, is 666 ft. (200 meters) wide and 15 ft. deep.

The **LANAÖ**, which empties W. of Arguelles, on the N. coast, but 9 m. long, is 1,000 ft. (300 meters) wide and 20 ft. deep.

The most important stream on the island, the **ÍLOG**, is the only river which penetrates the dividing range. Rising in E. Negros, it receives the Tablas from the S. and the Nitemay and its tributary, the Hilabang, from the N., entering the sea on the W. coast.

The **LAGASAN**, another important stream, empties on the same coast. None of the many rivers of Negros Oriental has its source more than 13 m. from the coast.

CEBÚ has no streams of importance except for drainage.

LEYTE: The chief rivers, which are very numerous, lie on the N. and E. coasts, the Bao, emptying into Ormoc Bay, being the only one of size on that side. Lake Bito, on the E., forms a little system of its own.

MINDANAO has not only the loftiest mountain (Apo Volcano, 10,312 ft.) but the greatest river of the United States Asiatic possessions. The stream which drains the central basin of the great island begins its remarkable course as the Pulangui and after a distance of 125 m. in a direct line, having received the waters of 2 large lakes, continues to the Illana arm of the Celebes Sea, a farther distance of 45 m. as the Rio Grande de Mindanao. Owing to the great bends on its way in length it is a trifle larger than the Grande de Cagayán, of Luzón, and exceeds it in volume, its great flow of water finding its outlet through 5 mouths. From its source to its mouth it has a fall of 5,000 ft., (1,500 meters), that part above Lake Lagusan in places being a torrent. To the lake it is navigable for gunboats. Its great tributaries are the Sanaga, Malapali, Mararagao, Malita, Tigna, Culaman, and Cabacan.

AGUSAN, the second great river of Mindanao and third in the archipelago in length and volume, drains the basin of Surigao between its two parallel ranges and empties on the N., its main tributaries being the important rivers Simúlao, Gíbong, Ihanan, Humayan, Arganan, and Ujut.

Among the other rivers of Mindanao rising to the dignity of systems are the Tagoloan, falling into Macajalar Bay; Misamis, on the N.; and Cagayán, emptying at the town of that name on the same bay.

A number of rivers of less importance traverse every part of the island and irrigate its fertile soil.

Mindanao is also famous for its lakes, Lanao being the center of a large Moro (Mahomedan) population, Liguasan, Bulúan, Maínit, Linao, and Panguil, the most important.

CLIMATE.

The climate of the Philippine Islands is temperate in the months of November, December, January, and February, the monthly mean oscillating between 25° C. and 26.5° C. It is excessively hot in the months of April, May, and June, when the monthly mean ranges between 27.5° and 28.5° C., and is intermediate in the months of March, July, August, September, and October, in which months the mean is not less than 26.5° C. nor greater than 27.5° C.^a

^a The centigrade scale represents the space between 32°, the freezing, and 212°, the boiling point, of the Fahrenheit scale, divided into 100 equal parts or degrees; the freezing point, 32° F., is therefore 0° centigrade, and the boiling point, 212° F., is 100° centigrade.

According to these variations of temperature, the year is divided into three seasons: (1) Dry and temperate (November, December, January, and February); (2) hot (April, May, and June), and (3) intermediate (March, July, August, September, and October).

The following figures represent the mean monthly temperatures in Manila for a period from 1883 to 1898:

	°C.		°C.
January	25	July	27.1
February	25.4	August	27.1
March	26.9	September	26.9
April	28.3	October	26.9
May	28.5	November	26.1
June	27.8	December	25.2

The mean annual temperature for the same period:

	°C.		°C.
1883	26.6	1891	26.8
1884	26.2	1892	26.9
1885	26.7	1893	26.6
1886	26.6	1894	26.6
1887	26.6	1895	26.7
1888	26.9	1896	26.8
1889	27.4	1897	27.4
1890	26.6	1898	26.8

The annual variation of temperature is not uniform in all the archipelago, being less in places nearest the equator. Thus the amplitude of annual oscillation is 5.3° in Aparri, 3.5° in Manila, 2.9° in Albay, 2° in La Carlota (island of Negros), 1.3° in Zamboanga, and only 0.7° in Sulu (Jol6). It can be stated, however, as a general law, that the lowest temperatures in all the archipelago belong to January or February, and the highest to May or June.

Atmospheric pressure.—The barometer reaches its greatest mean height in the month of February. It descends at almost the rate of 1 mm. a month from February to March, from March to April, and from April to May. It continues its descent from May to July, when the lowest average of the whole year is reached. A slight rise is noted in August, after which it again descends a little in September, although the mean height for this month is somewhat greater than that of July. Finally, the monthly average increases without interruption from October to February. The mean annual oscillation of the barometer, or the difference between the maximum monthly average of February and the minimum of July is 4.02 mm. The annual average is 759.31 mm.

Humidity.—The same humidity is usually noted in April. It increases during May and July, diminishes somewhat in August, again increases in September, when the maximum is reached, and then begins to diminish gradually and without interruption from October until April.

Rains.—The maximum of days of rain is during July, August, and September, and the minimum in February and March. From the maximum rainfall observed in the first-named 3 months until the minimum in the last-named 2 months, the number of rainy days gradually diminishes; and the number of rainy days increases gradually from the minimum in February to the maximum in July. On account of this distribution of rain, 2 seasons are recognized in the Philippines, namely: The dry season, which lasts from November to May, inclusive (7 months), and the humid or rainy season, the epoch of rain,

which continues during the other 5 months, from June to October, both inclusive. This division, however, can only be applied to the interior, and principally to the occidental coasts of the archipelago, but not to the oriental regions. In the E. coasts the season from November to May is distinguished by much precipitation, and the season from June to October is far from being as wet as on the W. coasts.

Winds.—The prevailing wind is from the SW. from May until October, from November to January from the N., and during the other 3 months, February, March, and April, from the E. The same frequency of the N. and NW. winds occurs in February and October, and that of the S. and SW. winds in the months of November, December, and January. May is the month of the veering of the winds from E. to those of SW., and October is the month wherein they change from SW. to those of the N. Cyclones are frequent in the months of July, August, September, and October. Continuous currents of wind and showers of rain from the third quadrant, known as "collas," occur in the months of June and July.

Clouds.—The number of clouds increase progressively from the month of April until August, the cloudiest month, when they begin to diminish until April, March being the clearest month of the whole year.

The weather bureau of the islands, established May 22, 1901, has installed at the following points observations, which are regularly forwarded to military authorities and inspectors of customs daily:

Station.	Class.	Longi- tude E. ^a	Latitude N. ^a	Altitude. ^b		Date of foundation.
Aparri	First.....	° ,	° ,	Feet.	Meters.	
San Fernando	Rain station.....	121 33	18 28	19.6	6	Sept., 1901.
Baguio.....	First.....	120 26	16 34	16.7	5.1	Aug., 1901.
Dagupan.....	do.....	120 35	16 28	4,783	1,458	Aug., 1900.
San Isidro	Second.....	120 20	16 4	15.4	4.7	June, 1901.
Cápiz	do.....	120 53	15 22	91.8	28	Sept., 1901.
Tacloban	do.....	122 46	11 35	.....	.....	Do.
Ormoc	First.....	125 0	11 14	.....	.....
Iloílo	do.....	124 33	11 2	14.7	4.5	Do.
Cebú	do.....	122 35	10 40	13.2	4	
Maasin	Second.....	123 56	10 18	13.2	4	Aug., 1901.
Tagbilaran.....	do.....	124 50	10 8	24.5	7.5	Do.
Surigao	Third.....	123 48	9 38	.....	.....	Oct., 1901.
Butián	Second.....	125 29	9 47	16.4	5	July, 1901.
Zamboanga	First.....	125 35	8 45	.....	.....	Sept. (non- official).
		122 3	6 54	.....	.....

^a Approximate.

^b Above mean sea level.

PHILIPPINE SEAS.

The coast line of the Philippine Islands is stated at 11,444 m. The interisland waters within this line are comparatively shallow, rarely exceeding 500 fms., and averaging about 75 fms. In the Bachi channel the N. boundary waters of the archipelago and the main thoroughfare of commerce between the Pacific Ocean and China Sea, the deepest soundings noted off Y'Ami (Batanes group), the E. landmark of entrance, is 100 fms. Balingtang, the parallel channel to the S. between the Batanes and Babuyanes groups, is equally shallow, the greatest depth on general charts being 150 fms., indicating a submarine plateau connecting the Philippines with the archipelago of Japan, through Formosa and the Liu Kiu and Linschoten chains. The waters off the N. shore of Luzón range in depths from 41 to 100 fms. or less. From Dingala Bay, Pacific coast of Luzón, on the parallels of 15° to 15° 20'

NE., a line of soundings (meridian $121^{\circ} 20'$ E.) begins at 103 fms. 10 m. off the coast, deepening to 3,260 fms. (19,560 ft.) at lon. $127^{\circ} 30'$ E. On the S. the hydrographic conditions of the N. are substantially repeated in the Celebes and Sulus seas. The former, however, shows great depth, 1,853 to 2,760 fms. in the center, shallowing to 140 fms. toward the Celebes chain on the E., which connects that group with Mindanao (Dávao), and shallower toward the Sulu Archipelago on the W. These patches of land form a continuous chain between NE. Borneo and Zamboanga (SW. Mindanao). The Celebes and Sulu waters mingle through the straits of Basilan, Sibutu, Alice, and a score less spacious and rarely exceeding 60 falling to 6 fms. depth. The Sulu Sea between the Sulu Archipelago on the E. and Balábac, Palawan, Calamián, and Busuanga, the visible landmarks in the hidden range on the W., between NW. Borneo and Mindoro, is a shallow body of water averaging from 50 to 250 fms. The Mindoro (Apo) and Balábac straits, besides several small intermediate channels through which pass the interchanging waters of this and the China seas, rarely reach 50 fms., except in the Mindoro Strait, where 1,000 fms. depths occur in isolated patches. These submarine chains and numerous uplifting islands, separated by shallow waters, establish the geographical relations of the Philippine Islands with the great archipelago (Eastern) of Asia rather than with Oceania. The China Sea, which extends along the entire western coast of the archipelago for a distance of 50 m. offshore, seldom exceeds 50 to 300 fms., except at the entrances to Mindoro Straits, 2,210 to 2,865 fms., Verde Passage 1,339 to 1,370 fms., and Lingayén Gulf 1,123 to 1,707 fms. The Visayan Sea, taking in all the waters surrounding the many islands, large and small, under that group, ranges in depth from 20 to 360 fms., with numerous shoals and rocks submerged and awash. The Mindoro Sea, the N. waters of the Sulu, ranges from 100 to 500 fms. except among the Cuyos Islands, where it shallows below 48 fms.

BAYS AND HARBORS.

There are numerous gulfs, bays, coves, ports, and harbors affording commercial and coastwise advantages unsurpassed in the Far East. Among the larger gulfs and bays may be mentioned the following in their order of importance:

MANILA, the principal bay of the archipelago, and one of the finest in the E., occupies a strategic position, in peace or war, about the center of the Western or China Sea, coast of Luzón. It is beautiful, expansive, and clear of obstructions, with excellent anchorage. The capital of the United States possessions in the Far East is situated on its shore, as also Cavite, the United States arsenal in the Philippines. It is surrounded by 5 provinces. (See Manila Bay, municipality of Manila.)

SÚBIC lies immediately N. of Manila Bay. It is 6 m. between heads and 8 m. inland, forming 2 safe harbors, with 7 to 10 fms., and sheltered from all winds.

LINGAYÉN, a gulf N. of Súbic Bay, on the same coast, with an entrance 20 m. wide, extending inland 31 m., and having a depth and shelter for the fleets of the world. It washes the shores of 3 provinces, and its chief landmark, Mount Sto. Tomás, to the E., is 7,418 ft. high.

LAMÓN, on the N. coast of Tayabas, S. Luzón, 45 m. wide at the mouth, and 35 m. inland, with a good depth of 10 to 75 fms. well

sheltered by Polillo and other islands of some size, capable of accommodating a large fleet.

TAYABAS, on the opposite shore, 50 m. between heads and 18 m. inland, reduces the peninsula of Luzón to a narrow neck of but 5' m. from bay to bay.

RAGAY, another large indentation of the S. coast, forms between the peninsula of Tayabas and Ambos Camarines, being 26 m. between heads and extending 52 m. inland.

BALAYÁN, and BATANGAS, separated from it by a narrow peninsula on the S. coast of Batangas, Luzón, also afford spacious facilities for vessels of all sizes. On the same coast,

SORSOGÓN, in the province of the same name, extends 19 m. inland to Sorsogón, the capital. On the opposite or Pacific shore is the expansive bay of.

LAGONOV, which is 26 m. between heads and lies along the coast of Ambos Camarines and Albay.

ALBAY is also an important bay in the province of the same name immediately S. of Lagonoy.

ASID forms a deep bight on the S. coast of Masbate, 20 m. between heads and 23 m. inland.

CARIGARA, on the N. coast of Leyte, is connected by means of the Janabatás channel on the strait of San Juanico, between Leyte and Samar, with the Pacific, Bay of San Pedro, and San Pablo.

SÓGOD is an important bay on the S. coast of Leyte, 11 m. between heads and 20 m. inland.

SINDANGAN, ILIGAN, MACAJALAR, and BUTÚAN on the N., and DÁVAO, SARANGANI, ILLANA, and SIBUGUEY on the S. coasts of Mindanao, are among the finest of the land-locked coast waters of the archipelago.

In addition to these bays are numerous well-sheltered straits affording secure anchorages against winds which frequently blow with violence across these islands. Among these may be particularly mentioned that of SAN BERNARDINO, between Luzón and Samar; the VERDE PASSAGE, between Batangas and Mindoro; DARAM, between Samar and Biliran and Leyte; ILOÍLO, passing that important city; TAÑÓN, between Cebú and Negros; BALÁBAC, between that island and Borneo; SURIGAO, between Leyte and Surigao, Mindanao, and BASILAN, between the island of that name and Zamboanga, Mindanao.

A number of fine bays and harbors of small dimensions form among the numerous islands adjacent to the mainland, and particularly in the Sulu Archipelago. These and a large number of smaller bays and harbors afford shelter and commercial facilities along the coasts of the Pacific, the Celebes, Sulu, China, Mindanao, Visayan, and Mindoro seas.

A number of surveys and reconnoissances have been made and are being continued of bays and harbors. Tidal observations are being recorded, geographic positions located, and magnetic variations determined, under the Manila suboffice of the United States Coast and Geodetic Survey.

ROADS AND COMMUNICATIONS.

The ways of communication between the provinces, towns, and villages on the different islands of the archipelago are by cart road, horse trail, or footpath. On the island of Luzón, Manila is the center of a system of intercourse by highways constructed with an idea to con-

tinuous lines of trade and transportation. While these lines are given in some detail in the descriptions of the provinces, among the great lines of intercourse by land may be mentioned the main highway which leaves Manila, and, passing through Bulacán and Bacolor, divides a short distance beyond the latter point, one line following the course of the Grand Pampanga River toward the NE. after entering Nueva Vizcaya, crossing to the headwaters of the Grand Cagayán River, the course of which stream it follows to the N. to Aparri on the N. coast of Luzón. At the point N. of Bacolor another main line extends in a NW. direction to Lingayén, from whence another main highway parallels the entire N. stretch of Chinese seacoast to Cape Bojeador, the extreme NW. corner of the island, thence by horse path following the N. coast to Aparri. From these trunk lines extend branch roads, horse trails, and footpaths to the towns in the interior or into the adjacent provinces.

Another main line leaving Manila to the S. parallels the coast of Laguna de Bay, making almost the entire circuit of that inland body of water.

At Biñang a highway leaves the main line and extends to the SW. of the Balayán Bay on the S. coast. At Calamba another road branches off and connects Laguna de Bay with Batangas, on the bay of that name, on the S. shore. At Santa Cruz another branch road extends into Tayabas, and continues as a highway, horse path, or trail the entire length of the peninsula of SE. Luzón, terminating at Sorsogón in the extreme SE. From this central line roads, paths, or trails branch in every direction to the towns on the different bays, ports, and harbors on the Pacific and Visayan seashores.

Manila is connected with Dagupan by railroad, the only one in the island. From this point an extension is projected, paralleling the China seacoast to Laoag, the capital of Ilocos Norte, the extreme NW. province of Luzón, and another from Dagupan to Baguio in Benguet. Another line is plotted from Manila along the Pásig River and Laguna de Bay to Santa Cruz in Laguna. At Calamba a branch is proposed to connect with Batangas on that bay on the S. side. A steam tramway extends from Manila to Malabon. In Cebu two private lines connect certain mines. All these franchises are held under Spanish grants.

An expert estimate gives 1,000 m. of railroads as sufficient to meet all requirements of the islands for some years, at a cost of \$35,000,000. This project includes a trunk line 600 m. through the Rio Grande de Cagayán Valley and the entire length of Luzón; an extension of the existing Manila and Dagupan Railroad to the N., along the China seacoast provinces of Unión, Ilocos Sur, and Norte, 200 m., to Laoag, the capital of the latter; a cross-island (E. and W.) line with Manila as its starting point about 100 m.; an extension of the Manila and Dagupan Railroad to Baguio Benguet, the proposed sanitarium, 55 m., and short feeders to the main line as the productive development of the country will warrant.

All the provinces of Luzón are well supplied with roads where production and trade has warranted their construction. The circuit of the entire seacoast of Negros is paralleled by a fine highway broken at short intervals by horse paths. The opposite coasts at several points are also connected by horse paths. The coast line of Cebú is also followed by highways and footpaths.

Bohol has several fine roads, and all of the towns are connected by horse paths. In the other islands roads are scarce, transportation of products being carried on by means of a few trails and native boats on the navigable streams. The latter means of communication is particularly extensive in Sámar, Leyte, Panay, and Mindanao. The Pásig River is the channel of an extensive trade between the Manila Bay and Laguna de Bay.

Among the islands of the Sulu Archipelago, and those adjacent to the coasts of the larger islands, trade is carried on by means of cascós and smaller craft.

POSTAL SERVICE.

The Post-Office Department of the United States maintains a general supervision over the Philippine service. It has been the policy to establish regular offices with an experienced American in charge wherever the amount of business to be expected or the mail to be handled justified the expenditure. At the smaller military posts substations of the nearest office have been established when requested by the commanding officer, who designated some one, unsalaried, to be supplied with stamp stock. There were 35 of these substations June 30, 1901. The mails by water are carried under the Spanish law requiring all steamers not under contract to run on set schedules to carry mails free of charge. In March, 1901, a weekly service was established between Dagupan and Baguio Benguet; and subsequently increased to semiweekly. All other mails are carried by army transportation. District commanders have established routes for the convenience of military posts. Through the machinery of the Quartermaster's Department, under an arrangement with the chief of the division, surplus postal and money-order funds are transmitted to Manila. During the fiscal year 1900-1901 remittances to the United States in settlement of balances on money-order account aggregated \$1,259,950.66.

The postage rate of 1 cent gold per half ounce instead of 2 cents per ounce on letters to island points, adopted after American occupation, is continued. With this exception, United States postage rates and conditions are in force.

Total receipts from all sources, 1900-1901	\$122,832.63
Total expenditures, 1900-1901	159,028.51
Total deficit	36,195.88

List of post-offices.

Town.	Province or island.	Town.	Province or island.
Abúcay	Bataán.	Luceña*	Tayabas.
Angeles*	Pampanga.	Mabatang	Bataán.
Aparri*	Cagayán.	Malolos	Bulacán.
Bacolod*	Negros Occidental.	Manila*	Manila.
Balanga	Bataán.	Misamis	Mindanao.
Batangas*	Batangas.	Nueva Cáceres*	Camarines Sur.
Bautista	Pangasinán.	Oríón	Bataán.
Cagayán*	Misamis.	Pásig	Rizal.
Cálmula*	Laguna.	Pilar	Bataán.
Catbalogan*	Sámar.	Sámal	Do.
Cavite*	Cavite.	San Fernando*	Pampanga.
Cebú*	Cebú.	San Fernando*	Unión.
Corregidor	Corregidor Island.	San Isidro*	Nueva Écija.
Dagupan*	Pangasinán.	Santa Cruz*	Laguna.
Dinalupijan	Bataán.	Sorsogón	Sorsogón.
Iloílo*	Panay.	Tacloban*	Leyte.
Joló*	Joló.	Vigan*	Ilocos Sur.
Laóng*	Ilocos Norte.	Virac*	Catanduanes Islands.
Legaspi*	Albay.	Zamboanga*	Zamboanga.
Lingayén	Pangasinán.		

* Denotes money-order offices authorized to issue and pay money orders.

Mails.—In the movement of the mails the time in transit from New York to San Francisco is 93 hours, the average time from San Francisco to Hongkong is 29 days, and the average time from San Francisco to Manila direct is 30 days. All mail for the Philippine Islands from the United States is forwarded to Manila, that being the sole office of distribution. Mail from the United States for the Philippines is not sent via Europe unless it is specially addressed "Via Europe."

As the establishment of regular postal transportation between the islands becomes more necessary with the return of normal conditions measures for the extension of service receive consideration from the postal authorities at Washington. The importance of a more direct, speedy, and regular communication with the Philippine Islands is fully recognized. It is proposed to provide such communication by forming connections with the mail service to Chinese and Japanese ports as the commercial advantages and general interests of the country offer inducements for the necessary outlay.

UNITED STATES TRANSPORT COMMUNICATION.

The direct means of steam intercourse between the United States and the Philippine Islands is by United States Army transports plying via the Pacific (W.) route from San Francisco, touching at Hawaii, Guam to Manila, average voyage 30 days; or, via the Atlantic, Suez Canal (E.) route, from New York, touching at Malta, Suez, Aden, Colombo, and Singapore, average voyage 45 days.

ROUTES AND FARES TO UNITED STATES POSSESSIONS IN ASIA.

The Trunk Line Association (passenger department), upon the acquisition of the Philippine Islands and the extension of the sphere of United States influence to eastern Asia, adopted a schedule of domestic trans-Pacific fares one way and also world-round trip, both from New York. This movement was supplemented by the Pennsylvania Railroad Company with a schedule of "round-the-world routes" at minimum through rates, with stop-over privileges for the convenience of the traveling public, officers of the Army and Navy of the United States going or returning, and commercial travelers in the exploitation of American trade. The following Trunk Line Association tariff, superseding all others, went into effect June 1, 1901. While subject to change it may be relied upon as a basis of reliable information.

Domestic trans-Pacific one-way through fares from New York.

	First cabin, with first- class ac- commoda- tion over- land.	Servants, other than Asiatic, with first- class ac- commoda- tion over- land.	* Steerage, with sec- ond-class accommo- dation overland.
Via all authorized all-rail routes to San Francisco, thence via Pacific Mail Steamship Co., Occidental and Oriental Steamship Co., or Toyo Kisen Kaisha (Oriental Steamship Co.), or to Tacoma, thence via Northern Pacific Steamship Co.			
Yokohama, Japan.....	\$278.50	\$211.85	\$152.75
Kobe (Hiogo), Japan	285.70	216.65	156.35
Nagasaki, Japan	296.50	223.85	162.35
Shanghai, China	303.50	228.50	167.75
Hongkong, China (British)	303.50	228.50	167.75
Manila, Philippine Islands (United States), via Hongkong, via Toyo Kisen Kaisha, or Nippon Yusen Kaisha or China-Manila Steamship Co., or Indo-China Navigation Co.'s regular service.	339.50	264.50	^b 203.75

^a Via Pacific Mail Steamship Co., Occidental and Oriental Steamship Co., and Toyo Kisen Kaisha (Oriental Steamship Co.), only.

^b First-cabin passage beyond Hongkong.

Domestic trans-Pacific one-way through fares from New York—Continued.

	First cabin, with first- class ac- commodation over- land.	Servants, with first- class ne- commoda- tion over- land.
To San Francisco, thence via Pacific Mail Steamship Co. or Oceanic Steamship Co. to Honolulu, Hawaiian Islands.....	\$153.50	\$128.50
To San Francisco, thence via Oceanic Steamship Co. to Pago Pago, Samoan Islands.....	228.75	178.75

BASIS FOR THROUGH FARES FROM NEW YORK IN CONNECTION WITH ROUND-TRIP FARES FROM PACIFIC COAST TO TRANS-PACIFIC DESTINATIONS.

Through fares to be made as follows:

(a) For one-way overland passage to the Pacific coast and round-trip steamship passage beyond: Add current one-way first-class fare applying via route selected to San Francisco or Tacoma to steamship fare quoted herein beyond.

(b) For round-trip overland passage to the Pacific coast and round-trip steamship passage beyond: Add current 9-months Pacific-coast tourist fare applying via route selected to San Francisco or Tacoma to steamship fare quoted herein beyond.

Tickets to be issued as follows:

(a) Regular one-way first-class ticket via route selected to San Francisco or Tacoma and exchange order on steamship line for round-trip ticket thence to trans-Pacific destination and return to port of embarkation.

(b) Regular 9-months Pacific-coast tourist ticket via route selected to San Francisco or Tacoma and exchange order on steamship line for round-trip ticket thence to trans-Pacific destination and return to port of embarkation.

The contract and coupons of ticket and the exchange order of Pacific-coast tourist ticket must be stamped or plainly faced in ink "Trans Pacific."

Routes.—Tickets to San Francisco or Tacoma will be issued via routes over which one-way first-class tickets and Pacific-coast tourist tickets are regularly sold.

Limits.—Same time limit to apply to San Francisco or Tacoma as authorized for regular one-way first-class tickets and Pacific-coast tourist tickets to those points.

Passengers desiring orders for 12-months round-trip steamship tickets who will not return within 9 months (final limit on Pacific-coast tourist tickets) must purchase one-way tickets overland as no extension of the regular 9-months limit on Pacific-coast tourist tickets will be allowed.

Children, baggage, and letter of advice subject to conditions similar to one-way fares.

Round-trip basing fares and regulations from Pacific coast.

	First cabin.		Servants other than Asiatic.	
	Four months.	Twelve months.	Four months.	Twelve months.
From San Francisco, via Pacific Mail Steamship Co., Oceanic and Oriental Steamship Co., or Toyo Kisen Kaisha (Oriental Steamship Co.); from Tacoma, via Northern Pacific Steamship Co.				
Yokohama, Japan.....	\$300.00	\$350.00	\$200.00	\$233.35
Kobe (Higoo), Japan.....	310.80	360.80	207.20	210.55
Nagasaki, Japan.....	327.00	377.00	218.00	251.35
Shanghai, China.....	337.50	393.75	225.00	262.50
Hongkong.....	337.50	393.75	225.00	262.50
Manila, Philippine Islands, via Hongkong (see steamship companies, Hongkong to Manila, one way).....	397.50	453.75	285.00	322.50
From San Francisco, via Pacific Mail Steamship Co., or Oceanic Steamship Co., to Honolulu, Hawaiian Islands.....	125.00	.....	\$83.33	.....
From San Francisco, via Oceanic Steamship Co., to Pago Pago, Samoan Islands.....	^b 225.00	250.00	.....	.....

^aVia Pacific Mail Steamship Co. or Oceanic Steamship Co. only.

^bThree months limit.

Meals and berth on trans-Pacific steamers included in above fares.

Children 5 years of age and under 12, half-fare through to trans-Pacific destination; under 5 years of age, free to San Francisco or Tacoma. On trans-Pacific steamers, children 2 years of age and under 5 will be charged quarter-fare; under 2 years of age free. One child only under 2 years of age will be carried free with each family, and additional children under that age will be charged quarter-fare.

Servants' fares are applicable only to bona fide servants accompanying their employers.

Servants will be berthed and served with meals according to ship's regulations.

Asiatic fares are applicable only to Japanese, Chinese, and other regular Asiatics.

Differential deductions do not apply to above fares.

Tickets.—Regular one-way first or second class tickets to be issued to San Francisco or Tacoma, and exchange order on steamship line for ticket thence to trans-Pacific destination.

The contract and coupons of ticket must be stamped or plainly faced in ink "Trans-Pacific."

Routes.—Tickets to San Francisco or Tacoma will be issued via routes over which one-way tickets are regularly sold.

Limits.—Same time limit to apply to San Francisco or Tacoma as authorized for regular one-way tickets to those points.

Baggage.—350 pounds of baggage will be checked free to San Francisco or Tacoma on each whole ticket and 175 pounds on each half ticket. Excess baggage will be charged for at regular excess-baggage rates.

On trans-Pacific steamers 350 pounds of baggage will be checked free for each adult first-cabin passenger, 250 pounds for each servant, 175 pounds for each second-cabin, intermediate, or steerage passenger, and proportionately for children.

Baggage must be checked only on tickets and exchange orders of Trunk Line issue.

Baggage must not be checked beyond San Francisco or Tacoma, where passenger must arrange for its transfer to the steamship.

Stop-overs.—First-cabin passengers will be allowed stop-overs at intermediate ports en route.

First-cabin passengers for points beyond Honolulu via San Francisco and Pacific Mail Steamship Company, Occidental and Oriental Steamship Company, or Toyo Kisen Kaisha (Oriental Steamship Company) will be accorded a stop-over at Honolulu and other ports en route, and may proceed thence without extra charge, by a steamer of any of those lines. The stop-over at Honolulu via Occidental and Oriental Steamship Company, or Toyo Kisen Kaisha (Oriental Steamship Company,) is limited to 30 days.

Letter of advice attached to the exchange order for steamship ticket must be properly filled out and immediately forwarded as directed therein.

The following is the list of scheduled connecting lines beyond Manila.

Toyo Kisen Kaisha, Nippon Yusen Kaisha, China and Manila Steamship Company, or Indo-China Navigation Company, regular service, Manila to Hongkong; Peninsular and Oriental Steam Navigation Company, Hongkong to London (via Singapore, Penang, Colombo, Aden, Port Said, Brindisi, Marsilles, and Plymouth); American Line (via Southampton or Cherbourg); Anchor Line (via Glasgow or Londonderry); Atlantic Transport Line (via London); Compagnie Générale Transatlantique (via Havre); Cunard Line (via Liverpool); Hamburg-American Line (via Plymouth, Hamburg, or Cherbourg); North German Lloyd Steamship Company (via Southampton); Red Star Line (via Antwerp), or White Star Line (via Liverpool), London to New York (direct), total rate \$642 (add \$36 Manila to Hongkong). Or by North German Lloyd Steamship Company, Hongkong to London (via Singapore, Colombo, Aden, Suez, Port Said, Naples, Genoa, and Southampton), or by Messageries Maritimes, Hongkong to Paris (via Saigon, Singapore, Colombo, Aden, Suez, Port Said, Alexandria, and Marsilles); Compagnie Générale Transatlantique, Paris to New York (via Havre).

Under this system tickets are sold at all principal ticket offices of the Pennsylvania Railroad for round-the-world tours, covering transportation via any authorized rail route from New York to San Francisco or Portland, except that San Francisco tickets can not be issued via Canadian Pacific or Minneapolis, St. Paul and Sault Ste. Marie (Soo Line) railways and Portland. From San Francisco a choice of twelve routes is offered to Chinese, Philippine, Indian, and South Pacific points and thence back to New York. The overland portions of these tickets have all the privileges of unlimited first-class tickets.

CABLE AND TELEGRAPH COMMUNICATION.

The Signal Corps of the Army has built and laid about 9,000 m. of telegraph lines and submarine cables in the Philippines since the occupancy by the Army of the United States to December 14, 1901. Very long stretches of lines were either recovered, abandoned, or destroyed, partly through hostile operations by the insurgents, and partly because extensive field lines were constructed and necessary only for offensive military operations. On June 30, 1901, there were 4,851 m. of Signal Corp telegraph lines and 749 m. of Signal Corps cables in operation in the Philippines, connecting 340 telegraph offices. There were also 360 local telephones in use at detached posts, giving a total of 700 offices, of which all except 10 were in communication with Manila and the general system. The telegraph system on December 14, 1901, embraced 30 separate military cables, with a total length of 1,327 m., and 4,983 m. of military telegraph lines, the whole system aggregating 6,210 m. of lines and cables. These afford the means of prompt communication, and consequent executive control from Aparri and Bangui, on the N. of Luzón, to the island of Siasi, in the extreme S., and connecting all the important islands of the archipelago except Palawan and Romblón. Over this system an average of upward of 10,000 official messages, civil and military, have been handled daily for many months. The operators of both cables and land lines are at present enlisted men of the Signal Corps. The linemen in some cases are natives, and schools have been opened for the instruction of Filipinos as operators. Commercial business at 123 offices, in addition to military, is now transacted at 203 of the offices on the Signal Corps lines, which thus serve as feeders to the commercial cables.

List of stations on military telegraph lines in the Philippine Islands doing commercial business.

[Circular No. 30, series 1901, Headquarters Division of the Philippines.]

Town.	Province.	Island.	Town.	Province.	Island.
Abúyog	Leyte	Leyte	Lal-16	Cagayán	Luzón.
Alamínos	Zambales	Luzón.	Laong	Ilocos Norte	Do.
Angeles	Pampanga	Do.	Legaspi	Albay	Do.
Aparri	Cagayán	Do.	Liloan	Pangasinán	Cebú.
Argao	Cebú	Cebú.	Liagayén	Batangas	Luzón.
Atinonan	Tayabas	Luzón.	Lipa	Do.	Do.
Bacólod	Negros Occidental.	Negros.	Loón	Bohol.	Bohol.
Baguio	Benguet	Luzón.	Lucena	Tayabas	Luzón.
Baliuag	Bulacán	Do.	Maasin	Leyte	Leyte.
Baís	Negros Oriental.	Negros.	Malabang	Bulacán	Mindanao.
Banate	Iloílo	Panay.	Malolos	Negros	Luzón.
Bangtud	Abra	Luzón.	Manapla	Ocidental.	Negros.
Barotac Nuevo	Iloílo	Panay.	Manila	City	Luzón.
Basey	Batangas	Luzón.	Matañom	Leyte	Leyte.
Batangas	Pangasinán	Do.	Miagao	Iloílo	Panay.
Bautista	Leyte	Do.	Misamis	Misamis	Mindanao.
Baybay	Negros Occidental.	Negros.	Naga	Náic	Cebú.
Binalbalagan	Antique	Panay.	Namacpacán	Cavite	Luzón.
Bugasón	Bulacán	Luzón.	Nueva Cáceres	Unión	Do.
Bulacán	Cabauatáu	Nueva Ecija	Olongapó	Camarines Sur	Do.
Cabauatáu	Cabancalau	Negros Occidental.	Ormoc	Zambales	Do.
Cabatuan	Iloílo	Panay.	Oslob	Leyte	Leyte.
Cagayán	Misamis	Mindanao.	Otón	Iloílo	Cebú.
Calamba	Laguna	Luzón.	Palo	Panay.	Leyte.
Calbáyog	Cápiz	Sámar.	Pandán	Antique	Panay.
Califó	Bulacán	Panay.	Párrang Párrang	Camarines Sur	Mindanao.
Calumpit	Candón	Luzón.	Pasacao	Rizal	Luzón.
Candón	Ilocos Sur	Do.	Pási	Iloílo	Do.
Cápiz	Cápiz	Panay.	Pototai	...do...	Panay.
Carigara	Leyte	Leyte.	Rosales	Nueva Ecija	Luzón.
Catbalogan	Cavite	Sámar.	San Antonio	Zambales	Do.
Cavite	Cavite Viejo	Luzón.	San Carlos	Negros Occidental.	Negros.
Cebú	Cebú	Do.	San Fernando	Pampanga	Luzón.
Colasi	Antique	Cebú.	Cebú	Unión	Do.
Dagupan	Pangasinán	Panay.	San Isidro	Nueva Ecija	Do.
Dalaguete	Luzón.	Do.	San Joaquin	Zambales	Do.
Do.	Cápiz	Cebú.	San José de Bue-	Iloílo	Panay.
Dinalupijan	Bataán	Panay.	na Vista	Antique	Do.
Dingle	Iloílo	Panay.	Santa Ana	Rizal	Luzón.
Dúlág	Leyte	Leyte.	Santa Bárbara	Iloílo	Panay.
Dumagnete	Negros Oriental.	Negros.	Santa Cruz	Laguna	Luzón.
Dumanjue	Cebú.	Cebú.	Do.	Zambales	Do.
Dumanjue	Cápiz	Panay.	Santo Tomás	Batangas	Do.
Escalante	Negros Occidental.	Negros.	Sara	Iloílo	Panay.
Gerona	Tárlac	Luzón.	Sibonga	Cebú	Cebú.
Guijulugan	Negros Oriental.	Negros.	Silay	Negros Occidental.	Negros.
Guinayúlgan	Tayabas	Luzón.	Siniloan	Laguna	Luzón.
Humingan	Nueva Ecija	Do.	Solano	Nueva Vizcaya	Do.
Iba	Zambales	Do.	Tacloban	Leyte	Leyte.
Ibajay	Cápiz	Panay.	Taguig	Rizal	Luzón.
Ilagan	Isabela	Luzón.	Tanauan	Leyte	Leyte.
Iligan	Misamis	Mindanao.	Tárlac	Tárlac	Luzón.
Iloílo	Iloílo	Panay.	Tayabas	Tayabas	Do.
Imus	Cavite	Luzón.	Tayug	Pangasinán	Do.
Imopacan	Leyte	Leyte.	Tibiao	Antique	Panay.
Iriga	Camarines Sur	Luzón.	Tigbauan	Iloílo	Do.
Isabela	Negros Occidental.	Negros.	Tucuran	Cagayán	Mindanao.
Isio	Do.	Do.	Tuguegarao	Negros Occidental.	Luzón.
Jaro	Iloílo	Panay.	Valladolid	Negros	Negros.
Do.	Do.	Leyte.	Valle Hermosa	Oriental.	Do.
Joló	Leyte	Joló.	Vigan	Ilocos Sur	Luzón.
La Carlota	Negros Occidental.	Negros.	Zamboanga	Mindanao.	Mindanao.
La Castellana	do	Do.			

REGULATIONS GOVERNING THE TRANSMISSION OF MESSAGES.

(1) Commercial messages originating at Manila, Iloílo, Cebú, or Bacólod will not be accepted for transmission between these points over military lines. Commercial messages arriving at any of the stations mentioned in this paragraph over military lines addressed to places where the Eastern Extension Australasia and China Telegraph Company has offices will be transferred to that company if the sender has complied with the requirements of paragraph 2 in regard to payment.

(2) Payment for all messages not sent on authorized public business over cable lines other than those of the military telegraph must be arranged for with the cable company by the persons sending such messages.

(3) The following tariff (American currency) will be collected on messages transmitted over military lines in the Philippines:

A. On messages transmitted between points on the same island, 2 cents per word.
 B. On messages transmitted between points on different islands, 4 cents per word.
 C. Press specials will be charged for at a rate of 1 cent per word between points on the same island and 2 cents per word between points on different islands.

D. Messages to be prepaid and address and signature to be counted.
 E. The minimum charge on any message will be the regular tariff for 10 words.
 F. Messages filed for transmission as official business over the Eastern Extension Australasia and China Telegraph Company's cables must bear proper official approval.

(4) Messages relating to public business from the following persons will be sent without charge, viz: Officers of the United States Government connected with the Military, Naval, Postal, and Marine-Hospital Service.

The civil governor; the members of the United States Philippine Commission; the secretary of the commission; the auditor; the treasurer; the general superintendent of public instruction; the collector of internal revenue; the chief justice of the supreme court; the director-general of posts; the chief of the forestry bureau; the chief of the bureau of mines; the captain of the port of Manila; collectors of customs at various ports; the provincial treasurer of each province, and all messages countersigned by him relating to provincial business; division superintendents of schools in communicating with the general superintendent of public instruction and the teachers under their charge, these messages as a rule not to contain more than 25 words.

(5) The military telegraph of the Philippine Islands will, for public business, be used only for the transmission of important messages of urgency which if sent by mail would probably result in detriment to the public interest.

(6) Telegrams will be concise and so written that punctuation marks will not be required to insure understanding. All useless words will be omitted. The last name of the person addressed and of the sender of the message or the title of office will generally be sufficient.

Messages in all cases will bear the name of the province in which the originating point is located, also province of station to which addressed, except in cases of leading commercial cities, such as Manila, Cavite, Dagupan, Vigan, Apárrí, Batangas, etc.

(7) Personal messages filed by persons in the military and naval service of the United States and persons officially connected with the civil government of the islands will be charged for at the rate of 1 cent per word between points on the same island and 2 cents per word between points on different islands.

(8) The proceeds received by the various military telegraph offices will be turned into the insular treasury by the officials responsible therefor and accounts rendered monthly.

List of United States military cables.

Name.	Provinces or islands.	Distance.
Calamba—Los Baños	Laguna, Luzón	6.7
Calamba—Santa Cruz	.....do	19
Calbáyog—Catalbagan	Daram Channel, Sámar	36.3
Calbáyog—Palanog	Sámar to Masbate, Sea of Sámar	76.3
Calapán—Batangas	Mindoro to Luzón, Visayan Sea	30.1
Calapán—Bonc	Mindoro to Marinduque, Mindoro Sea	46.4
Cápíz—Milagros	Panay to Masbate, Visayan Sea	73
Catalbagan—Carigara	Sámar to Leyte, Carigara Bay	44
Cebú—Liloán	Cebú, Mactan Straits	13.6
Dumaguete—Misamis	Negros to Mindanao, Sea of Mindanao	115.4
Guinayañgan—Pasacao	Tayabas to Ambos Camarines, Luzón, Gulf of Ragay	50
Iligan—Cayagán	Misamis to Mindanao, Iligan Bay	60.7
Joló (Sulu)—Siasi	Joló (Sulu) Archipelago, Sulu Sea	50.4
Legaspi—Bacón	Albay to Sorsogón, Luzón, Albay Gulf	29.9
Tacloban—Liloán—Sámar	Leyte to Sámar, San Pedro Bay	1.4
Liloán—Ormoc	Cebú to Leyte, Visayan Sea	79.4
Loón—Argao	Bohol to Cebú, Sea of Cebú	14.3
Maasin—Surigao	Leyte to Mindanao	55.1
Mabalang—Paran Paran	Ilana Bay, Mindanao	25.3
Manila—Cavite	Manila to Cavite, Manila Bay	8.5
Misamis—Iligan	Mindanao, Iligan Bay	31.8
Misamis—Lintogo	Mindanao, Pánguil Bay	22.8
Náic—Corregidor	Cavite to Corregidor, Manila Bay	14
Oslob—Dumaguete	Negros, Oriental, to Cebú, Sea of Cebú	18.4
Palánog—Sorsogón	Masbate to Luzón, Visayan Sea and Sorsogón Bay	63.1
Santa Cruz—Siniloan	Laguna to Luzón, Laguna de Bay	12.5
Tucuran—Malabang	Ilana Bay, Mindanao	50
Tucuran—Zamboanga	Celebes Sea, Mindanao	158.4
Zamboanga—Isabela	Basilan Strait, Mindanao to Basilan	18.4
Zamboanga—Joló (Sulu)	Joló Sea, Mindanao to Joló	101.5
Total		1,326.7

All cable and telegraph lines in the Philippine Islands are under control of the United States Signal Corps, excepting telegraph line along Manila and Dagupan Railroad Company's tracks which this company can use for its own (company's) purposes only, and the Eastern Extension Company's cables connecting Manila, Iloílo, Cebú, and Bacólod.

COMMERCIAL CABLES.

In addition to the Signal Corps telegraph system, the islands of Luzón, Panay, Negros, and Cebú have stations of the cables of the Eastern Extension Australasia and China Telegraph Company approximating 610 m. in length, as follows:

Town.	Island.	Connection.
Bacólod	Negros, occidental.	With the island of Panay (Iloilo), Eastern Extension Australasia and China Telegraph Co.
Cebú	Cebú	With the island of Panay (Iloilo), Eastern Extension Australasia and China Telegraph Co.
Iloilo	Panay	With island of Negros (Bacólod). With island of Cebú (Cebú). With island of Bohol (Loón). With island of Leyte (Ormoc). With island of Mindanao to Cebú, or Bacólod, Government line to Dumaguete, Negros, and Government cable to Misamis, Iligan, Cagayán, Zamboanga and Sulu.
Loón	Bohol	With island of Panay (Iloilo), by Eastern Extension Australasia and China Telegraph Co. to Cebú, Government land line to Argao, and heliograph to Loón.
Manila	Luzón	With the island of Panay (Iloilo), Eastern Extension Australasia and China Telegraph Co.
Ormoc	Leyte	By Eastern Extension Australasia and China Telegraph Co. to Cebú and Government cable to Ormoc.

Selected list of tariff to points over the Eastern Extension Australasia and China Telegraph Company cables.

[The rate in effect from Cebú or Iloilo to Bacólod is 20 ets. per word.]

FOREIGN.

From Manila to—	Rate per word, Mexican currency.
Amoy, China	\$0.90
Ceylon, India	2.43
Cochin China, Asia	1.20
Europe, nations of	3.15
Fuchau, China	.90
Hongkong, China	.60
India	2.40
Japan	2.10
Java, Dutch Indies	1.95
Other islands, Dutch Indies	2.15
New South Wales, Australia	2.82
New Zealand	2.91
Pekin, China	1.32
Queensland, Australia	2.88
Shanghai, China	.90
Siam (via Cape St. James)	1.38
Siam (via Moulmein)	2.85
Singapore, Straits Settlements	1.65
Taku, China	1.22
Tientsin, China	1.22
Victoria, Australasia	2.79
Visayns (Eastern Extension Australasia and China station), Philippine Islands	.22
Western Australia, Australia	2.76

UNITED STATES.

California, San Francisco (other places)	\$3.72
Columbia, District of, Washington (other places)	3.59
Illinois, Chicago (other places)	3.62
Louisiana, New Orleans	3.62
Louisiana (other places)	3.69
Maryland, Baltimore (other places)	3.59
Massachusetts, Boston (other places)	3.53
Missouri, St. Louis	3.62
Missouri (other places)	3.69
New York	3.59
New York, New York City	3.53
New York, Brooklyn	3.53
Ohio, Cincinnati	3.62
Oregon, Portland	3.72
Pennsylvania, Philadelphia	3.59
Washington, Seattle	3.72

POPULATION AND TOWNS.

From the best complete official (Spanish census, 1887) and other sources of information, the total population of the Philippine Islands, as compiled in the subjoined table, is 6,975,073, and the total number of towns 1,137. The figures possibly under rather than over state the actual number of inhabitants, civilized and wild. It is inferred, the officials being obliged to return a peseta poll tax to the island government for each adult enumerated, that the number accounted for did not exceed the actual enumeration. In an exhibit of total population of June 1, 1900, including, along with continental United States, certain outlying districts and recent insular accessions, the United States Census Office assigned to the Philippine Islands 6,961,339. The independent figures of the Division of Insular Affairs, based upon the population of 1887, official, and its own sources of information, with percentages of increase shown by the figures of 1876, 1877, 1879, produced the results referred to in the exhibits, from which it will be seen that the aggregate reached by the Census Office and the Division of Insular Affairs, embodied in the Annual Report of the Secretary of War, Appendix D, differ but 13,734.

The proportion of qualified electors to inhabitants in the towns organized (to October 15, 1901), according to returns received from 390 municipalities, showed a population of 2,695,801, with a total of 49,523 qualified electors, or 18.37 electors per 1,000 inhabitants. Any person able to read and write the English or Spanish language and owning property to the value of \$250 American currency, or who paid annually taxes to the amount of \$15, or who held municipal offices under the Spanish régime, was eligible to vote. In addition to the elective characteristics of the Filipino people, these figures afford some idea of their educational, realty, corporate, or social status.

The Twelfth Census of the United States showed the following results:

	Population.
Continental United States	75,994,575
Philippine Islands.....	6,961,339
Porto Rico	953,243
Hawaii	154,001
Alaska	63,592
Guam	9,000
American Samoa	6,100
Persons in military and naval service outside continental United States	91,219
United States	84,233,069

A census of the Philippine Islands was in progress in 1896 when the insurrection broke out, and returns for over two-fifths of the population were found stored in Manila. These were tabulated and the foregoing estimate was based upon the result.

The total population of the United States at the close of the nineteenth century was 84,233,069. At the beginning of the century it was about five and a third million. The nation, therefore, has grown nearly sixteenfold in one hundred years.

POPULATIONS OF WORLD POWERS COMPARED.

There are but two countries which now have a greater homogeneous population than the United States, viz, China and the Russian Empire. In bulk, however, China and the British Empire have each probably between 350,000,000 and 400,000,000, together nearly one-half of the

total population of the earth. The Russian Empire, with about 131,000,000 people, has been increasing during the century just closed with greater rapidity than any other European power. Its growth, like that of the United States, has been through the natural increase of its population and great accessions of territory. It had about 38,800,000 people in 1800 and has increased more than three and a half times during the nineteenth century.

France, including its dependencies, is the fourth country of the world in order of population, with about 83,666,000—almost the same number as the United States. Of these over 25,000,000 are in African dependencies, nearly 17,000,000 in Asia, and 2,000,000 in Madagascar. These 5 most populous countries together include over two-thirds of the estimated population of the world, which is placed by the best authorities at between 1,500,000,000 and 1,600,000,000.

PHILIPPINE POPULATION REPORTS COMPARED.

Four reports of the entire population have been printed. The official count of 1887 appears to be confirmed by the civil count of the previous decade of 1877. These figures (1887) give an aggregate of 6,985,000, as compared with 6,975,073 (Gazetteer). An approximation based on the supposition that about one-sixth part of the whole population paid tribute, gives a total of 7,451,352 but how ascertained is not stated. In some enumerations only the subject and Catholic populations are given and the heathen, Mohammedans, and independent tribes omitted. This, in a measure, will account for the random figures indulged in by numerous writers, ranging from 5,000,000 to 8,000,000 and even 10,000,000 inhabitants. Of the figures given, 6,462,875 may be regarded as correct as far as the Spanish census of population in the Philippines in 1887 can be so accepted. The estimated population not counted as official aggregates 512,298, taken from church and other responsible sources of information.

TERRITORIAL AND POLITICAL DIVISIONS.

There are six grand divisions possessing territorial contiguity and dominant racial and linguistic homogeneity, as follows:

LUZÓN, N., Ilocano-Pangasinán; central, Tagálog; S., Vícol (Bícol), with numerous less progressive tribal offshoots of the same fusion of native and invading races.

MINDANAO, Malay-Moro.

MINDORO, Manguianes, chiefly, and of Malayan origin.

PALAWAN, Tagbanúas and Mohammedan Malays.

SULU, Mojos, descendants of the Mohammedan invaders.

VISAYAS, Visayans.

UNASSIGNED, Calamianes or Tagbanúas, Agutainos, and other offshoots of Malay origin.

List of islands, provinces, and populations.

[Under the Spanish census, 1887, estimated population not counted, total population, and number of towns; also subdivided by provinces under the same classification.]

Islands or groups.	Area.	1887 population, Spanish census.	Estimated population not counted.	Total population.	Towns.
Luzón	Sq. m. 44,253	3,679,219	48,269	3,727,488	No. 570
Marinduque	681	48,000	.....	48,000	6
Mindanao	46,721	138,924	356,735	495,659	130
Mindoro	4,108	67,656	38,544	106,200	19
Palawan (Paragua)	5,037	2,100	50,250	52,350	14
Sulu Archipelago	1,029	22,630	.....	22,630	14
Visayan Islands	25,302	2,486,205	10,000	2,497,908	381
Unassigned	740	16,338	8,500	24,838	3
Total	127,853	6,462,875	512,298	6,975,073	1,137

Total population of the archipelago 6,975,073
 Total área sq. m. 127,853
 Number of inhabitants per sq. m. 54.55+

Islands and provinces.	Area.	1887 population, Spanish census.	Estimated population not counted.	Total population.	Towns.
Luzón	Sq. m. 44,235	3,679,219	48,269	3,727,488	No. 570
1. Abra	1,484	41,300	2,000	43,300	11
2. Albay	997	195,129	.....	195,129	23
a. Catanduanes	704	33,010	.....	33,010	29
3. Ambos Camarines	3,161	194,022	.....	194,022	44
4. Bataán	436	50,761	.....	50,761	12
5. Batangas	1,108	311,180	.....	311,180	22
6. Benguet	990	15,175	.....	15,175	8
7. Bontoc	480	13,985	(a)	13,985	5
8. Bulacán	841	239,221	.....	239,221	25
9. Cagayán	5,031	85,408	.....	85,408	22
a. Babuyanes	179	1,284	.....	1,284	5
b. Batanes	81	8,776	899	9,675	8
10. Cavite	610	134,569	.....	134,569	23
11. Ilocos Norte	1,265	163,349	.....	163,349	15
12. Ilocos Sur	491	215,792	.....	215,792	22
13. Infanta	877	9,095	.....	9,095	2
a. Polillo	294	1,700	.....	1,700	1
14. Isabela	5,395	48,302	(b)	48,302	22
15. Laguna	752	169,933	.....	169,933	33
16. Lepanto	1,232	16,152	.....	16,152	3
a. Quiáfagán .....	.....	30,000	.....	30,000	6
17. Manila, municipal	20	250,000	.....	250,000	1
a. Corregidor	4	420	.....	420	1
18. Nueva Écija	3,840	156,610	.....	156,610	28
19. Nueva Vizcaya	1,075	19,379	39,000	58,379	8
a. Cayapa .....	.....	2,249	.....	2,249	.....
20. Pampanga	2,209	223,922	.....	223,922	25
21. Pangasinán	1,316	302,178	.....	302,178	29
22. Príncipe	1,218	4,100	6,370	10,470	7
23. Rizal	1,048	246,910	(d)	246,940	34
24. Sorsogón	675	98,650	.....	98,650	16
25. Tárlac	1,295	89,339	.....	89,339	17
26. Tayabas	2,334	109,780	.....	109,780	23
27. Unión	867	110,164	.....	110,164	14
28. Zambales	2,210	87,295	.....	87,295	26
Marinduque	681	48,000	.....	48,000	6
Mindanao	46,721	138,924	356,735	495,659	130
1. Basilan	354	(*)	8,000	8,000	4
2. Cotabato	8,344	4,148	.....	4,148	6
3. Dapitan	2,386	17,273	3,000	20,273	5

* Total is estimated at 82,500, on account of the races scattered over the province.

^a An estimate of 14,000 for former comandancia of Saltán would make 62,302 for province not counted.

^b According to a late enumeration by the board of health of the city of Manila the population is over 280,000.

^c Population of former territory of Manila 200,000, towns 20; of Mórong 46,940, towns 14.

^d The Spanish census gives the enumeration 1,119; the church (1895) gives the enumeration 1,421 the town of Isabela has an enumeration 6,000. (Eastern Arch., Pt. I.) Other expert authority, 8,000.

List of islands, provinces, and populations—Continued.

Islands and provinces.	Area.	1887 population, Spanish census.	Estimated population not counted.	Total population.	Towns.
Mindanao—Continued.					No.
4. Dávao	Sq. m. 9,171	.....	33,668	33,668	21
5. Lánao	3,900	.....	100,000	100,000	8
6. Misamis	5,879	(*)	126,942	126,942	44
7. Surigao	13,201	(b)	85,125	85,125	30
8. Zamboanga	3,486	117,503	(c)	117,503	12
Mindoro.....	4,108	67,656	38,544	106,200	19
Palawan.....	5,037	2,100	50,250	52,350	14
1. Palawan (Paragua).....	4,726	(d)	50,000	50,000	10
2. Balábac	264	2,100	.....	2,100	3
3. Cagayán de Sulu	47	.....	250	250	1
4. St. Michaels Islands.....	1,029	22,630	(e)	22,630	.....
Sulu Archipelago					
1. Balanguín (group)	38	.....	335	.....
2. Pañigútaran (group)	72	.....	1,815	.....
3. Sulu (Joló) (group)	380	.....	14,415	.....
4. Tapul (group)	77	.....	1,300	.....
5. Tawi Tawi	462	.....	4,765	.....
Visayan Islands.....	25,302	2,486,205	10,000	2,497,908	381
1. Bohol.....	1,614	260,000	.....	260,000	37
2. Cebú.....	1,782	518,032	.....	518,032	52
3. Leyte	4,214	270,491	.....	270,491	50
4. Masbate:					
a. Burias	268	1,708	.....	1,703	1
b. Masbate	1,315	21,366	.....	21,366	13
c. Ticao	149	(h)	.....	.....	4
5. Negros Occidental	3,112	231,512	.....	231,512	30
6. Negros Oriental	1,742	140,498	.....	140,498	24
7. Antíque	1,340	115,434	.....	115,434	51
8. Cápiz	1,661	224,000	.....	224,000	33
9. Iloilo	2,102	433,462	.....	462,444	48
10. Romblón	515	55,339	.....	55,339	6
11. Sámar	5,488	185,386	10,000	195,386	32
Unassigned.....	740	26,338	8,500	24,838	3
1. Calamianes	677	16,338	.....	16,338	1
2. Cuyos	63	.....	8,500	8,500	2

* In 1897 the population of Misamis as then constituted was 169,256. It is estimated that about one-fourth of that number occupy the region outside the new boundaries, leaving the above number a fair estimate of the population within the new boundaries.

^b The census of 1887 gave 67,760 population; official figures (1898) gave 85,125, exclusive of the wild races of the mountains.

^c In 1897 an enumeration gave 19,503 Christians in Zamboanga and surrounding towns; 8,000 Mohammedans, and 90,000 estimated in the unexplored regions of Sibuguey.

^d Official, 1887, certain towns, 5,985. Another authority (Arguelles, former governor), Christians in N., 10,000; Mohammedans in S., 6,000. Other experts, 28,000 to 30,000. Population of native races estimated, Tagbanúas, 6,000; Negritos, 1,500; Manguianes, 4,000; Tandilanos, 1,500. A round estimate of 50,000 may be regarded as conservative.

^e Official guide of the Philippines, 1897, population of Sulu Archipelago, 22,630.

^f Ferreiro gives these figures of fighting men governed by datos or Panlimanes in the groups named. An expert estimate of a population of 200,000 in the archipelago of Sulu is given as not excessive.

^g Another authority gives the population at 11,000 in 1875.

^h See Masbate.

ⁱ This represents the population in 1897 of Concepción district, now Iloilo.

The most conservative totals of population of the Philippine Islands foot up larger than any single State in the American Union, except New York (7,268,012).

During the Spanish domination there were two sources which at almost any time could be used to ascertain with sufficient accuracy for all practical purposes the number of inhabitants in the towns recognizing Spanish sovereignty. These were the assessment lists for tribute and the parochial records. The returns from these two sources were fairly accurate. It has been found, however, that those from the first generally fell below the facts, while those from the second source

were in excess. Independently of these two regular sources of information, the Spanish Government took an official census in 1887, bearing the date of December 31. The published returns show evidence of having been compiled with some care, and as the enumeration districts were small there is no good reason to question the general accuracy of the results. Another official census was ordered for the year 1896, which was in progress when the last insurrection against Spain broke out. The work was in charge of the "centro de estadística." This census was never completed and never published, although the material compiled has been utilized in the tables given.

PROGRESS OF PHILIPPINE POPULATION.

The following table shows the progress of the Philippine population, including only the people who recognized Spanish rule, from 1735 to 1896:

Population of the Philippines at different periods.

[Includes only the people who recognized Spanish rule.]

Year.	Population.	Sources of information and remarks.
1735	837,182	Reports by various religious organizations.
1799	1,522,224	Compilation made by the city government of Manila from the tax rolls for the tribute (25 provinces).
1805	1,741,234	Same source; quoted by Buzeta, II, p. 53.
1812	1,933,331	Do.
1815	2,502,934	Do.
1817	2,062,805	Do.
1818	2,026,230	Same source; quoted by Buzeta, II, p. 53. This total is 80,602 less than that quoted by Buzeta, but it is the correct footing for the provinces reported.
1827	2,593,287	Sources unknown; quoted by Buzeta, <i>ibid.</i> , who does not vouch for accuracy
1833	3,153,290	Same as for 1827.
1840	3,096,031	Special reports to the <i>Guía de Forasteros de Manila</i> , made by the local officials. Apparently very reliable. Buzeta gives this total as 3,209,077, or 113,046 more, of which 46 are clearly errors in addition and 113,000 probably an estimate of the "infieles."
1845	3,434,007	Special reports to the <i>Guía de Forasteros</i> .
1850	3,800,163	Sum of the figures given by Buzeta as the population of each province, probably on the basis of reports by the parish priests. The total quoted by Buzeta from the Guide for the same year is 3,815,874, which does not agree with his figures for the various provinces.
1862	4,734,533	Ecclesiastical census, published in the Guide, 1863.
1870	4,698,477	Reports by the civil authorities, compiled and published by Cavada, <i>Historia Geográfica, Geológica y Estadística de Filipinas</i> , Manila, 1876. If we include 393,300, Cavada's estimate of the "infieles," the grand total is 5,091,777. An ecclesiastical census of the same year gives a total of 5,126,791, including the "infieles."
1876	5,567,685	Civil census quoted in the <i>Guía Oficial</i> for several years, see 1898. An ecclesiastical census of about the same time gives a total of 5,570,779, to which might be added 602,853, the estimated number of "infieles," making a grand total of 6,173,632.
1879	5,817,268	Ecclesiastical census published in the <i>Guía de Filipinas</i> for 1881; estimated number of "infieles" was 632,645; grand total, 6,449,813. This was the census of which a manuscript copy was sent to Professor Blumentritt. Death rate in the same year was 106.3 per 1,000, against a birth rate of 43.4 per 1,000.
1887	5,984,727	Civil census. This was the only census ever taken independently of the tax rolls or the church records. Errors in computation in the published reports amounting to 504 have been corrected. Severe epidemic of cholera in 1882 contributed, among other causes, to restrain the growth.
1891	6,101,682	From a table, dated Manila, Nov. 30, 1891, bearing the signatures of Manuel del Busto and José Gutiérrez de la Vega, president and vice-president, respectively, of the <i>centro de estadística</i> . This table shows internal evidence of having been very carefully prepared and is apparently more reliable than any other report of the same period. Epidemic of cholera in 1889.
1896	6,261,339	Estimated on the basis of the partial census of 1896, it being assumed that the rate of increase found in the 494 towns reported would hold good throughout the islands.

The deduction which can be drawn from the foregoing figures is the slow growth of the population.

The following is another table which gives, by provinces, the population in the years 1818, 1840, 1850, 1870, and 1887; also for 1901 (estimated):

Population, by provinces, according to five reliable reports.

Provinces.	1818.	1840.	1850.	1870.	1887.	Gazetteer 1901 estimate.
Abra			31,815	35,090	41,318	43,300
Albay	92,665	115,308	238,175	^a 220,328	^b 206,689	228,139
Amburayan (Ilocos Sur)						
Antique	50,597	48,333	84,570	108,855	115,434	115,434
Balabac				1,550	2,110	2,100
Bataán	23,393	39,002	39,008	36,086	50,781	50,761
Batanes		8,000	8,000	8,326	10,517	
Batangas	112,120	170,282	221,021	241,782	311,180	
Basilan				523	1,119	8,000
Benguet				(c)	16,234	15,175
Bohol	(d)	(d)	(d)	^a 153,734	^b 216,522	260,000
Bontoc				10,184	13,985	13,985
Binlácán	125,021	165,078	213,498	214,507	239,221	239,221
Burias			602	791	1,708	1,703
Cagayán	161,322	^c 57,022	^c 85,839	71,657	96,357	96,367
Cagayán de Sulu						250
Calamianes	13,157	16,052	15,027	^a 14,435	14,291	16,338
Camarines Norte		21,476	28,324	22,615	29,109	
Camarines Sur	^b 113,892	^b 153,245	^a 115,571	128,860	164,913	^b 194,022
Cápiz	65,262	136,248	186,587	140,471	194,809	224,000
Caraga	15,957	29,977	31,968	(b)		
Cavite	51,665	90,696	126,627	116,276	134,569	134,569
Cebú	^b 108,426	^b 1280,729	^b 139,073	394,215	504,081	518,032
Concepción					36,935	
Corregidor				501	484	420
Cotabato				2,339	4,138	4,148
Cuyos						8,500
Dapitan						20,273
Dávao				13,721	3,966	33,668
Ilocos Norte	135,748	182,167	157,559	150,947	163,349	163,349
Ilocos Sur	147,095	179,315	192,272	^a 179,305	178,258	215,792
Iloilo	^b 176,901	^b 265,847	^b 288,629	^b 348,371	386,477	462,444
Infanta	(k)	(k)	(k)	7,496	7,100	10,795
Isabela	(l)	(l)	(l)	36,219	48,302	48,302
Joló (group) (Sulu)					2,896	22,630
Laguna	^b 86,680	^b 119,607	^b 137,083	108,492	169,983	169,983
Lanao						100,000
Lepanto						
Leyte	40,623	91,819	112,957	156,850	270,491	270,491
Manila	(o)	(o)	(o)	266,333	300,392	
Manila (city) taken from Manila province			12,000			250,000
Marinduque						48,000
Masbate y Ticao	(p)	(p)	(p)	18,194	21,366	23,069
Mindoro	18,796	26,727	35,136	^a 55,063	67,656	106,200
Misamis	26,226	36,429	47,388	78,104	116,024	126,942
Mórong (Rizal)	35,445	55,535	17,753	40,038	46,910	(r)
Negros Occidental			17,754	196,120	148,137	231,512
Negros Oriental			17,754		122,734	140,498
Nueva Ecija	^b 15,506	^a 19,745	^b 69,135	87,468	156,610	156,610
Nueva Vizcaya		20,411	22,236	32,209	19,379	60,628
Pampanga	^b 106,381	^b 152,232	^b 156,272	^b 203,137	223,902	223,922
Pagasinán	119,322	200,348	242,476	249,507	302,181	302,128
Palawan (Paragua Norte)					5,985	50,000
Príncipe				3,561	4,198	10,470
Rizal						^b 246,940
Romblón	(r)	(r)	(r)	11,124	34,828	55,339
Samar	57,922	94,730	110,103	161,679	184,386	195,380
Sorsogón	(r)	(r)	(r)	(r)	87,090	98,650
Surigao				50,978	67,760	85,125
Tárlac	(r)	(r)	(r)	(r)	89,439	89,339
Tayabas	48,676	82,619	80,110	95,218	109,780	109,780
Tiagán				(r)	7,793	
Tondo	149,951	233,062	281,499	(r)	(r)	
Unión						
Zambales	18,841	44,225	95,260	103,630	110,064	110,164
Zamboanga	8,640	9,765	8,618	^a 79,568	^b 87,275	87,295
Total	2,026,230	3,096,031	3,800,163	4,698,477	5,984,727	6,975,073

^a Decrease due to changes in boundaries.^b Province of Sorsogón cut off from Albay.^c Included in Unión.^d Included in Cebú.^e Includes Siquijor which is now attached to Negros Oriental.^f Includes Isabela.^g Includes Paragua Norte.^h See Surigao.ⁱ Includes Bohol.^j Includes Concepción.^k Included in Laguna.^l Included in Cagayán.^m Includes Infanta.ⁿ Includes Tiagán.^o See Tondo.^p Included in Albay.^q Includes Marinduque and Lubang.^r See Rizal.^s Includes Príncipe.^t Includes Tárlac.^u Includes Manila province except Manila city and Mórong.^v Included in Cápiz.^w Included in Albay.^x Included in Pampanga.^y Included in Lepanto.^z See Manila. Also see "Population January 1, 1902," under Manila city.

In the future comparatively accurate statistics of population may be expected from the national census office and insular bureau of statistics, the latter established on September 26, 1900, by a law enacted by the Philippine Commission.

General totals of the population of the Philippine Archipelago under the Spanish census of 1887.

	Men.	Women.	Total.
Total population enumerated.....	3,035,318	2,960,843	5,996,161
Residents present:			
Spanish and native.....	2,960,725	2,940,429	5,901,154
Foreign	33,458	456	33,914
Transient:			
Spanish and native.....	40,203	19,937	60,140
Foreign	932	21	953
Residents absent:			
Spanish and native.....	47,177	17,574	64,751
Foreign	516	29	545
Total	3,041,876	2,958,488	6,000,364
Enumerated or estimated in report accompanying atlas of Philippine Islands, transmitted by the Philippine Commission to the President, Volume III, December, 1900			974,709
Grand total enumerated (1887) and estimated (1900)			6,975,073

A summary of population, according to sex, and total by provinces, under the partial census of 1896, shows for the 37 provinces given—

Males.....	1,380,256
Females.....	1,410,490
Total.....	2,790,746

No returns of population under the attempted census of 1896 were found for the islands or provinces of Basilan, Batangas, Batanes, Bontoc, Burias, Camarines Norte, Camarines Sur, Cavite, Cebú, Corregidor, Cotabato, Davao, Laguna, Leyte, Negros Oriental, Pampanga, Sorsogon, Surigao, Tarlac, and Tiagan.

Towns (pueblos) in the Philippine Archipelago, by islands or provinces.

[Complete alphabetical list of pueblos or name centers of population districts, arranged under islands or provinces, together with the population of each town (pueblo) and aggregate for the political division as a whole.]

[The figures for 1896 are results of an official census undertaken by Spain and interrupted by a new insurrection. The work was never completed nor published by Spain, but has been under the auspices of the bureau of statistics of the insular government. (Report United States Philippine Commission 1900-1901, part 2, pp. 583-593.) These figures are reproduced here solely for information and not comparison. The 1887 figures are often greater than those of 1896, which can only be accounted for in the constant shifting of population or other casualties incident to the hardships of a rude life and to tribal rule or unstable government in any form.]

Island or province, by towns or districts.	Partial census, 1896, total.	Total population, combining residents present and residents absent, native and Spanish, 1887.		
		Men.	Women.	Total.
ABRA. *				
Alfonso XII ^b	887			
Bangued.....	10,579	8,292	8,121	16,413
Buicay	2,288	2,538	2,594	5,132
Dolores		1,133	929	2,062
Paz, La	2,781	1,739	1,772	3,511
Piddigan		1,401	1,469	2,873
Pilar		770	794	1,564
San Gregorio.....	1,663	583	648	1,231

* 3 towns not reported in the census of 1896.

^b It was not organized in 1887.

Towns (*pueblos*) in the Philippine Archipelago, by islands or provinces—Continued.

Island or province, by towns or districts.	Partial census, 1896 total.	Total population, combining residents present and resi- dents absent, native and Spanish, 1887.		
		Men.	Women.	Total.
ABRA—continued.				
San José de Manabo	1,197	393	415	808
San Juan	1,146	328	386	714
San Quintín	1,273	463	495	960
Tayum		1,552	1,649	3,201
Villavicja	2,657	1,070	1,079	2,019
Total	24,471	20,267	20,351	40,618
Estimated, 1901 (not including Bontoc)				43,300
ALBAY. ^a				
Albay	11,920	5,749	5,923	11,672
Bacacay	10,824	5,056	5,184	10,240
Bacón ^b		7,068	7,029	14,097
Barcelona ^b		2,338	2,068	4,406
Bulan ^b		4,003	3,933	7,936
Bulusan ^b		2,411	2,255	4,666
Cagsana	22,186	9,604	10,694	20,298
Calolbón		1,855	1,753	3,608
Camálig	15,092	7,091	7,396	14,487
Caramorán		478	416	894
Casiguran ^b		2,807	2,721	5,528
Castilla ^b		1,219	1,089	2,308
Catanduanes Bagamanoc		590	710	1,300
Catanduanes Bató		3,395	3,337	6,732
Donsol ^b		2,871	2,750	5,621
Gúbat ^b		6,285	5,840	12,125
Guinobatan	20,964	9,685	10,157	19,842
Irosin ^b		2,184	2,014	4,198
Jovellar	5,170	1,870	1,693	3,563
Juban ^b		2,043	1,798	3,841
Legaspi	6,407	3,586	3,596	7,182
Libog	6,378	3,492	3,624	7,116
Libong	6,770	2,313	2,250	4,563
Ligao	17,886	8,394	8,586	16,980
Magallanes ^b		1,339	1,249	2,588
Malilipot	5,742	2,586	2,657	5,243
Malinao	13,071	5,828	6,000	11,828
Manitao		2,528	834	1,588
Matnog ^b		1,813	1,852	3,665
Oás	15,055	5,203	5,746	10,949
Pandán		955	929	1,884
Payo		890	847	1,737
Pilar ^b		2,342	2,208	4,550
Polangui	10,123	4,404	4,702	9,106
Sorsogón ^b		5,258	5,067	10,315
Tabaco	20,095	8,477	8,178	16,655
Tiui (Tivi)	8,816	5,048	5,115	10,163
Vega		1,488	1,439	2,927
Virac		2,663	2,764	5,427
Total	199,027	146,498	147,281	293,779
Estimated, 1901 (exclusive of Sorsogón detached)				228,139
ANTIQUE.				
Aniniy	5,130	2,467	2,514	4,981
Antique	7,174	3,574	4,030	7,604
Burbaza	6,067	2,357	2,471	4,828
Bugasón	10,076	4,294	4,621	8,915
Cagayancillo ^c	2,339			
Carlilan	2,775	1,631	1,824	3,455
Culasi	9,992	4,269	4,869	9,138
Dro	7,413	3,751	3,798	7,549
Egaña	4,943	1,103	1,263	2,366
Guisijan	4,218	1,837	2,008	3,845
Nalupa	2,002	1,395	1,466	2,861
Pundán	8,660	5,038	5,616	10,654
Patnóñgon	6,120	2,931	3,305	6,239
San José de Buenavista	5,806	3,068	3,266	6,334
San Pedro	5,960	3,213	3,617	6,830
San Remigio	3,544	1,759	1,746	3,505
Sebaste or Ypago	3,681	2,020	2,371	4,391

^a 8 towns not reported in census of 1896.^b Now in the province of Sorsogón, organized after 1887.^c Not reported in the census of 1887.

Towns (*pueblos*) in the Philippine Archipelago, by islands or provinces—Continued.

Island or province, by towns or districts.	Partial census, 1896, total.	Total population, combining residents present and resi- dents absent, native and Spanish, 1887.		
		Men.	Women.	Total.
ANTIQUE—continued.				
Sibalón	11,820	5,789	6,496	12,285
Tibiao	5,546	2,952	3,249	6,201
Valderrama	4,120	2,156	2,270	4,426
Total	118,284	55,607	60,800	116,407
Estimated, 1901				115,434
BALÁBAC.				
Balábac	208	1,048	786	1,834
Estimated, 1901				2,100
BATAÁN.				
Abúcay	4,403	2,406	2,392	4,793
Bagac	1,418	1,022	975	1,997
Balanga	7,564	4,305	4,003	8,308
Dinalupíjan	2,380	2,013	1,771	3,784
Llana Hermosa	2,376	1,873	1,718	3,591
Mabatang	1,935	942	915	1,857
Mariveles	1,445	885	805	1,690
Morón	2,797	1,377	1,276	2,653
Orani	5,296	3,015	2,934	5,949
Orión	8,645	3,781	3,648	7,429
Pilar	3,408	1,862	1,887	3,749
Sámal	4,946	2,469	2,469	4,938
Total	46,613	25,850	24,893	50,743
Estimated, 1901				50,761
BATANES. ^a				
San Bartolomé de Calayán		669	686	1,355
San Carlos de Magosa		640	596	1,236
San José de Ibana		1,102	1,135	2,237
Santa María de Itbayas		338	377	715
Santo Domingo de Basco		1,643	1,620	3,263
San Vicente de Saptán		868	853	1,721
Total		5,260	5,273	10,533
BATANGAS.				
Balayán		7,978	8,236	16,214
Batangas		17,617	17,814	35,431
Bauan		17,282	18,363	35,645
Calacá		6,219	6,044	12,263
Calatagán		996	1,007	2,003
Cuenca		2,674	2,970	5,644
Ibaán		4,353	4,664	9,017
Lemery		7,676	7,710	15,386
Lian		2,488	2,389	4,877
Lipa		22,494	20,583	43,077
Loboó		2,575	2,550	5,125
Nasugbú		4,062	3,776	7,838
Rosario		7,194	7,182	14,376
San José		4,845	5,028	9,874
San Juan		5,631	5,537	11,168
San Luis		2,831	3,068	5,899
Santo Tomás		5,505	5,534	11,039
Tanl		10,657	11,382	22,039
Talisay		3,529	3,276	6,805
Tanauan		10,332	10,120	20,452
Taysán		8,516	3,688	7,204
Tuy		5,608	5,403	11,011
Total		156,062	156,062	312,124
Estimated, 1901				311,180
BENGUET. ^b				
Abundao		133	138	271
Adaoy	490	318	313	631
Ambuciaao	202			
Ampusíngan	625	287	249	536

^a Included territorially in Cagayán de Luzón.^b 10 towns not reported in census of 1896.

c Not reported in 1887.

Towns (*pueblos*) in the Philippine Archipelago, by islands or provinces—Continued.

Island or province, by towns or districts.	Partial census, 1896, total.	Total population, combining residents present and resi- dents absent, native and Spanish, 1887.		
		Men.	Women.	Total.
BENGUET—continued.				
Atoc	726	692	1,418	
Bagnio	330	325	655	
Balabac	362	320	682	
Bocot	370	346	716	
Bunguas	521	592	1,113	
Cabayan	581	655	1,236	
Capaangan	533	561	1,094	
Dacian	516	478	994	
Galiano	451	419	870	
Guibungan	710	402	685	
Itogon	609	137	249	
Loo	541	474	1,015	
Palima	201	191	392	
Sablán	320	223	543	
Trinidad	1,409	770	819	1,589
Tublay	1,186	583	599	1,182
Total	7,054	8,082	7,785	15,871
Estimated, 1901				15,175
BOHOL. ^a				
Alburquerque	7,438	3,035	3,058	6,093
Anda	4,057	1,757	1,675	3,432
Antequera	5,842	2,673	3,104	5,777
Baclayón	7,619	3,791	4,110	7,901
Balilihan	2,716	2,356	5,072	
Batuanan	645	643	1,288	
Calape	10,283	3,992	4,163	8,155
Candijay	5,232	2,073	1,761	3,834
Cauaoan	4,441	4,387	8,828	
Carmen	1,617	1,553	3,170	
Catigbian	2,180	995	1,010	2,005
Corella	4,217	1,813	1,922	3,735
Dauis	8,545	3,487	3,761	7,248
Dimiao	8,336	3,896	4,005	7,901
Duero	2,760	2,967	5,727	
García Hernández	5,065	2,758	3,010	5,768
Getafe	4,106			
Guindulman	8,571	3,337	3,400	6,737
Guinduhán				
Juabanga	10,405	5,240	5,104	10,344
Ipil	1,160	579	604	1,183
Jagná		5,908	6,359	12,267
Lanis		3,525	3,663	7,188
Lila		2,012	2,243	4,255
Loay		3,080	3,273	6,353
Loboc		5,150	5,606	10,756
Loón		6,084	6,237	12,321
Maria		2,500	2,476	4,976
Maribojoc	11,251	5,096	5,190	10,286
Pamplinian or Cortés	6,018	2,403	2,796	5,199
Panglao		2,436	1,837	4,272
San Juan		2,667	2,761	5,428
Sevilla		2,723	2,614	5,337
Sierra-Buttones		743	717	1,460
Siquijor		4,551	4,660	9,211
Tagbilaran		3,770	3,858	7,628
Talibón		2,049	1,962	4,011
Tubigón		5,862	5,750	11,612
Ubay		2,039	1,600	3,639
Valencia		3,344	3,688	7,032
Vilar	5,916	3,093	3,150	6,243
Total	116,744	122,291	124,224	246,515
Estimated, 1901				260,000
BONTOC.				
Agna	111	140	251	
Alap	381	298	682	
Ambayacan	94	112	206	
Anquién	136	150	286	
Antado	156	173	329	
Buininao	68	76	144	
Bélfis	92	94	186	

^a18 towns not reported in census of 1896.

Towns (*pueblos*) in the Philippine Archipelago, by islands or provinces—Continued.

Island or province, by towns or districts.	Partial census, 1896, total.	Total population, combining residents present and resi- dents absent, native and Spanish, 1887.		
		Men.	Women.	Total.
BONTOC—continued.				
Balugan		253	329	582
Banaue		177	212	389
Betuagin		117	155	272
Bolinang		187	202	389
Bontoc		516	471	987
Can-eo		99	116	215
Cristiano		74	82	156
Cunugun		176	163	339
Dalieam		235	208	443
Fidilizan		101	145	246
Guinaoan		319	360	679
Inapuy		62	72	134
Mainic		136	193	329
Maleeon		281	280	561
Piquigan		130	163	293
Poquitan		196	243	439
Quináquil		128	162	290
Sacasaan		54	41	95
Sandanga		292	276	568
Sagada		504	586	1,090
Sanuqui		257	275	532
Taecon		165	176	341
Talubing		298	313	611
Tanulon		113	138	251
Tetapan		531	506	1,037
Tucueau		204	199	403
Total		6,666	7,109	13,775
Estimated, 1901 (not included in Abrá)				13,985
BULACÁN.				
Angat	9,755	4,108	4,044	8,152
Baliuag	17,250	8,563	8,660	17,223
Barasoain	9,336	4,691	4,809	9,500
Bigáá	7,561	3,911	3,904	7,815
Bocage	10,085	4,280	4,320	8,600
Bulacán	11,860	5,945	5,946	11,891
Bustos	6,635	3,366	3,431	6,797
Calumpit	15,712	5,774	5,839	11,613
Guiguinto	14,548	2,596	2,538	5,134
Hagonoy	17,803	9,104	9,396	18,500
Malolos	13,467	7,826	7,880	15,706
Marilao	5,073	2,344	2,222	4,566
Meycauayan	9,098	4,610	4,646	9,256
Norzagaray	5,276	3,114	2,997	6,111
Obando	1,180	3,692	3,884	7,576
Paombong	9,285	4,025	4,152	8,177
Polo	10,645	4,963	5,199	10,162
Pulilan	11,233	4,836	5,033	9,869
Quíñqua	3,982	3,632	3,680	7,312
San Ildefonso	6,480	3,686	3,576	7,262
San José ^a		1,422	1,338	2,760
San Miguel de Mayumo	15,563	9,742	9,655	19,397
San Rafael	7,135	5,084	5,065	10,149
Santa Isabel	6,223	3,216	3,304	6,520
Santa María de Pandi	10,288	4,592	4,884	9,476
Total	114,962	119,122	120,342	239,464
Estimated, 1901				239,222
BURIAS.				
San Pascual		879	811	1,690
Estimated, 1901				1,703
CAGAYÁN DE LUZÓN. ^b				
Abúlug	6,410	3,210	3,080	6,290
Alcalá		2,973	3,083	6,056
Amúlung		3,476	3,232	6,708
Apári		3,689	3,931	7,620
Biguey	2,058	624	578	1,202
Camalaniugan	5,088	2,006	2,188	4,194
Claveria		1,928	1,726	3,654

^a Not reported in the census of 1896.^b 10 towns not reported in census of 1896.

Towns (*pueblos*) in the Philippine Archipelago, by islands or provinces—Continued.

Island or province, by towns or districts.	Partial census, 1896, total.	Total population, combining residents present and resi- dents absent, native and Spanish, 1887.		
		Men.	Women.	Total.
CAGAYÁN DE LUZÓN—continued.				
Enrile.....	5,466	2,715	2,488	5,203
Gattaran.....		592	619	1,211
Iguig.....		2,319	2,190	4,509
Lal-ló.....	5,409	2,199	2,095	4,294
Maláneg.....		1,474	1,473	2,947
Nagsiping.....	973	473	491	964
Pampoloma.....	2,575	2,478	2,451	4,929
Piat.....	2,963	1,253	1,338	2,591
Santo Niño.....		1,689	1,614	3,303
Solana.....		3,177	2,910	6,087
Tuao.....		2,358	2,442	4,800
Tuguegarao.....		9,977	9,300	19,277
Sanchez Mira *.....	2,988			
Total.....	33,940	14,610	14,229	95,839
Estimated, 1901.....				96,367
CALAMIANES.				
Agutaya.....	1,796	917	1,251	2,198
Cnlión.....	3,252	2,351	1,920	4,277
Cuyo.....	8,192	4,112	4,791	8,903
Total.....	13,240	7,416	7,962	15,378
Estimated, 1901.....				16,338
Camarines Norte.				
Basud.....		851	829	1,608
Cápalonga.....		583	551	1,134
Dáet.....	4,020	3,973	7,993	
Indán.....		3,248	2,946	6,194
Labo.....		2,146	1,974	4,120
Mambulao.....		461	478	939
Paracale.....		1,336	1,426	2,762
San Vicente.....		436	433	869
Talisay.....		1,766	1,653	3,419
Total.....	14,847	14,263	14,263	29,110
Estimated, 1901, see Camarines Sur "Ambos Camarines."				
Camarines Sur.				
Banío.....	3,491	3,553	3,553	7,044
Bágy.....	911	792	792	1,703
Bató.....	2,331	2,344	2,344	4,675
Bombón.....	1,227	1,141	1,141	2,368
Bulí.....	3,493	3,709	3,709	7,202
Bula.....	1,489	1,469	1,469	2,958
Calabáñga.....	2,741	2,756	2,756	5,497
Cámaligan.....	1,883	1,782	1,782	3,465
Canamán.....	2,759	2,663	2,663	5,422
Gaíenza.....	1,375	1,525	1,525	2,900
Gon.....	2,810	2,764	2,764	5,574
Iriga.....	7,630	7,599	7,599	15,229
Lagñoy.....	5,082	5,258	5,258	10,340
Libmanán.....	7,207	7,448	7,448	14,655
Lupí.....	397	393	393	790
Mababatbató.....		611	585	1,196
Mingáño.....		2,821	2,842	5,663
Manguirín.....		318	349	697
Milaror.....		2,353	2,700	5,053
Minalábag.....		1,701	1,920	3,621
Nabua.....		8,618	8,626	17,244
Nueva Cáceres.....		4,905	4,346	9,251
Pamplona.....		1,618	1,605	3,253
Pasacao.....		760	653	1,413
Iili.....		1,539	1,548	3,087
Quipayo.....		945	970	1,915
San Fernando.....		1,531	1,537	3,068
San José.....		3,832	4,071	7,903
Sípocot.....		620	419	1,069
Sírona.....		324	259	583
Tigáñ.....		1,555	1,524	3,079
Tinambac.....		1,339	1,276	2,615
Total.....	82,380	82,908	82,908	165,288
Estimated, 1901, Ambos Camarines Norte and Sur.....				194,022

* Organized after 1887.

Towns (*pueblos*) in the Philippine Archipelago, by islands or provinces—Continued.

Island or province, by towns or districts.	Partial census, 1896, total.	Total population, combining residents present and resi- dents absent, native and Spanish, 1887.		
		Men.	Women.	Total.
CÁPIZ. ^a				
Balete	1,152	1,171	2,323	
Banigá	3,364	4,006	7,370	
Batán	4,486	5,533	10,019	
Burunanga	1,982	2,302	4,284	
Calíyo	10,314	5,926	6,102	12,028
Cápiz	10,706	8,500	8,192	16,692
Cuartero	4,099	2,170	2,453	4,623
Dao	8,032	2,671	2,606	5,277
Dumálag	8,443	3,659	3,731	7,390
Dumárao	5,599	2,427	2,723	5,150
Íbájay	11,608	5,904	6,258	12,162
Ibisan	2,787	1,298	1,472	2,770
Jagnaya	2,169	1,002	1,093	2,095
Jamindán	1,194	416	465	881
Jimeno	3,135	1,495	1,445	2,940
Lezo		1,672	2,121	3,793
Libacao	2,409	1,843	1,940	3,783
Locutgan	2,398	1,388	1,537	2,920
Maayon	1,616	984	996	1,980
Macató	10,224	3,184	3,405	6,589
Madalag	2,590	1,842	1,969	3,811
Malinao	7,068	3,183	3,403	6,586
Mambúsaو	10,929	4,222	4,303	8,525
Navas	5,561	2,035	2,179	4,214
Numancia		3,013	3,098	6,111
Panay	11,965	9,657	9,686	19,343
Panítan	6,687	3,336	3,119	6,455
Pilar	2,814	2,380	2,453	4,883
Pontevedra	10,090	3,264	3,227	6,491
Sapíán	2,688	1,546	1,635	3,181
Sigma	3,448	2,579	2,381	4,960
Tangalan	2,652	1,559	1,578	3,137
Tapás	3,319	1,201	1,285	2,486
Total	167,318	95,335	99,867	195,202
Estimated 1901				224,000
CÁVITE.				
Alfonso	3,672	3,354	7,026	
Amadeo	1,578	1,705	3,283	
Bacoor	6,455	5,230	11,685	
Bailén	2,495	2,036	4,531	
Caridad, La	3,053	2,918	5,971	
Carmona	2,012	1,871	3,883	
Cavite	1,376	1,016	2,392	
Cavite Viejo	3,216	3,086	6,302	
Imus	5,175	6,967	12,142	
Indang	5,760	5,088	10,848	
Magallanes	1,370	1,107	2,477	
Maragondón	4,134	4,143	8,277	
Méndez Núñez	1,835	1,816	3,651	
Náic	3,485	4,593	8,078	
Novela	1,105	1,109	2,214	
Pérez Damarillas	2,160	2,179	4,339	
Rosario	3,088	2,988	6,076	
San Francisco de Malabón	4,248	4,148	8,396	
San Roque	2,875	2,792	5,667	
Santa Cruz de Malabón	4,024	3,429	7,453	
Silang	3,588	3,636	7,224	
Ternate	1,246	1,125	2,371	
Total	67,809	66,477	134,286	
Estimated ^a 1901			134,569	
CEBÚ.				
Alcántara	1,636	1,625	3,261	
Alcoy	1,387	1,271	2,658	
Alegria	4,672	4,205	8,877	
Aloguinsan	1,899	1,649	3,548	
Argao	11,577	11,545	23,122	
Asturias	3,580	3,351	6,931	
Badián	3,554	3,819	7,373	
Balambán	5,836	5,277	11,113	
Bantayán	6,861	7,037	13,898	
Barili	9,230	8,539	17,769	
Bogó	7,822	7,370	15,192	

^a 5 towns not reported in census of 1896.

Towns (*pueblos*) in the Philippine Archipelago, by islands or provinces—Continued.

Island or province, by towns or districts.	Partial census, 1890, total.	Total population, combining residents present and resi- dents absent, native and Spanish, 1887.		
		Men.	Women.	Total.
CEBÚ—continued.				
Boljoón	2,553	2,514	5,067	
Borbón	1,750	1,680	3,430	
Cárcar	13,581	12,458	26,039	
Carmén	3,273	3,065	6,338	
Catmón	2,744	2,685	5,429	
Cebú	5,730	5,468	11,198	
Compostela	2,243	2,188	4,431	
Consolación	2,145	2,162	4,307	
Córdoba	3,256	3,073	6,329	
Dánao Bantayán	4,974	4,647	9,621	
Dalaguete	10,124	9,145	19,269	
Dánao	7,014	6,501	13,575	
Dumanjug	5,106	4,622	9,728	
Ginatilan	4,595	4,809	9,404	
Lilom	3,990	4,051	8,041	
Malabóyoc	3,627	3,320	6,947	
Mandaue	4,877	5,241	10,118	
Medellín	2,599	2,362	4,961	
Minglanilla	9,342	8,562	17,904	
Moalboal	3,124	2,805	5,929	
Naga	5,270	5,255	10,525	
Nueva Cáceres	2,644	2,460	5,104	
Opón	5,032	5,235	10,267	
Oslob	2,811	2,858	5,664	
Pardo	4,931	4,519	9,450	
Pilar	2,103	2,128	4,231	
Pinamungahan	2,271	2,172	4,443	
Poro	3,530	3,402	6,932	
Ronda	2,240	2,099	4,339	
Samboan	3,404	3,648	7,088	
San Fernando	6,678	5,289	11,967	
San Francisco	3,198	3,288	6,486	
San Nicolás	11,234	10,352	21,586	
San Remigio	3,456	3,225	6,681	
San Sebastián	1,191	1,251	2,442	
Santa Fe	1,471	1,465	2,936	
Santander	1,868	1,952	3,820	
Siboñga	11,739	11,240	22,979	
Sogod	3,084	2,788	5,872	
Tabogón	3,874	3,898	7,772	
Talambán	3,618	3,600	7,218	
Talisay	8,395	7,694	16,089	
Toledo	4,374	4,146	8,520	
Tuburan	4,119	4,145	8,264	
Total	257,326	246,096	503,422	
Estimated 1901			518,032	
CORREGIDOR.				
San José	237	221	458	
Estimated 1901			420	
COTABATO.				
Cotabato	556	337	893	
Polloc	217	173	390	
Tamontaca	656	602	1,258	
Total	1,429	1,112	2,541	
Estimated 1901			4,148	
DÁVAO.				
Astorga	97	76	173	
Pávano	803	670	1,473	
Lagubay	322	291	613	
Luzón	108	125	233	
Mati	278	257	535	
Santa Cruz	361	350	714	
Total	1,972	1,769	3,741	
Estimated 1901			33,668	
ILOCOS NORTE.*				
Bacarra	7,062	6,887	13,949	
Bádoc	10,846	6,099	11,617	
Bangui	6,129	4,020	7,794	

* 7 towns not reported in census of 1896.

Towns (*pueblos*) in the Philippine Archipelago, by islands or provinces—Continued.

Island or province, by towns or districts.	Partial census, 1896, total.	Total population, combining residents present and residents absent, native and Spanish, 1887.		
		Men.	Women.	Total.
ILOCOS NORTE—continued.				
Báratac	8,446	8,535	16,981	
Banná	2,146	2,200	4,112	
Dingrá	6,006	5,663	11,669	
Laoag	28,322	15,324	15,546	30,840
Nagpartián		1,804	1,673	3,477
Paoay	10,341	6,138	6,009	12,147
Pasquín	5,743	3,623	3,639	7,262
Piddig	6,398	4,049	3,779	7,828
San Miguel	8,541	5,676	5,675	11,251
San Nicolás		6,524	6,532	13,056
Solsoma		2,119	2,031	4,150
Vintar		4,626	4,552	9,178
Total	78,466	83,716	81,595	165,311
Estimated 1901				163,349
ILOCOS SUR. ^a				
Bantay	2,924	2,826	5,750	
Cabugao	6,127	5,855	11,982	
Candón	8,774	9,197	17,971	
Caoyan		3,136	2,208	5,344
Lapog		3,515	3,311	6,826
Magsíngal		4,717	41,817	9,534
Narvacán		8,550	9,843	18,393
Nueva Coveta	487	225	210	435
Salcedo	667	809	993	1,802
San Esteban	2,511	1,362	1,459	2,821
San Ildefonso	2,111	1,311	1,273	2,584
San Vicente		2,637	2,882	5,469
Santa	8,472	4,127	4,573	8,700
Santa Catalina	5,527	2,571	2,596	5,167
Santa Cruz	5,941	3,847	3,809	7,656
Santa Lucía	7,113	3,562	4,004	7,566
Santa María	12,167	6,281	6,341	12,622
Santiago	3,643	2,049	2,074	4,123
Santo Domingo	8,704	4,056	4,058	8,114
Sevilla	1,065	767	728	1,495
Sináit	7,482	3,719	3,784	7,503
Tagudín	7,959	6,718	7,079	13,797
Vigan		7,018	7,231	14,249
Total	73,849	88,802	91,101	179,903
Estimated 1901				215,792
ILOÍLO. ^b				
Ajuy	4,718	4,670	9,388	
Alimodíán	5,092	5,705	10,197	
Anilao		1,839	1,620	3,459
Arévalo		1,596	1,690	3,286
Banate	6,250	3,216	3,036	6,252
Barótac Nuevo		6,578	6,357	12,775
Barótac Viejo		3,456	3,120	6,576
Buenavista		2,970	3,002	5,972
Cabatuan	19,939	9,942	10,342	20,284
Calinog	6,497	3,875	3,879	7,754
Carlés		5,441	4,993	10,234
Concepción		2,017	1,855	3,872
Córdoba	2,693	1,618	1,600	
Dingle	11,140	6,297	6,503	12,800
Dueñas		3,423	2,916	6,339
Dumanág	14,925	8,282	8,454	16,736
Guimbal		5,818	5,744	11,562
Igbarás		4,872	5,080	9,952
Iloílo	6,429	6,184	5,780	11,364
Janiuay	19,417	12,712	13,031	25,743
Jaro	10,333	5,383	5,610	10,936
Lambunao	10,059	3,895	3,832	7,727
Leganés		2,265	2,288	4,553
León		1,231	1,262	2,493
Lucena	13,168	6,362	6,697	13,059
Maasin		2,597	2,806	5,403
Mandurria	10,126	5,194	5,282	10,476
Mingao		2,599	2,640	5,259
Mina	22,066	10,348	10,384	20,732
		2,458	2,662	5,720

^a 9 towns not reported in census of 1896.^b 18 towns not reported in census of 1896.

Towns (*pueblos*) in the Philippine Archipelago, by islands or provinces—Continued.

Island or province, by towns or districts.	Partial census, 1896, total.	Total population, combining residents present and resi- dents absent, native and Spanish, 1887.		
		Men.	Women.	Total.
ILOILO—continued.				
Molo		3,636	3,645	7,281
Nagaba (Guimaras Island)	4,701	2,804	2,987	5,794
Otón	14,280	7,332	7,235	14,567
Passi		4,330	4,299	8,629
Pavia		3,959	3,965	7,924
Paz		1,908	1,961	3,872
Pototan	16,074	10,325	10,587	20,912
San Dionisio		2,195	2,180	4,375
San Enrique		1,526	1,558	3,084
San Joaquin		6,349	6,167	12,516
San Miguel (Angoy)	7,198	3,373	3,457	6,630
Santa Bárbara	15,528	7,536	7,631	15,167
Sara		3,246	3,204	6,451
Tigbauan	10,154	5,066	4,838	9,904
Tubuñgan	5,594	2,621	2,696	5,317
Zárraga		2,830	2,857	5,687
Total	230,196	210,957	210,911	421,868
Estimated, 1901				462,444
INFANTA.				
Binanigan de Lampón	9,097	3,043	2,982	6,025
Polillo	1,784	530	564	1,114
Total	10,881	3,593	3,546	7,139
Estimated, 1901				10,795
ISABELA DE BASILAN.				
Isabela		561	397	985
Estimated, 1901 (for the entire island of Basilan)				8,000
ISABELA DE LUZÓN.				
Angadanán	3,278	1,084	1,104	2,188
Cabagán Nuevo	7,436	2,953	2,890	5,843
Cabagán Viejo	3,796	1,771	1,725	3,496
Carig	1,599	700	637	1,337
Cauayan	2,257	1,148	1,011	2,159
Coloma de Santa Isabela*		823	779	1,602
Cordón	1,074	506	470	976
Echague	6,878	2,233	1,753	3,986
Gumú ^a		1,824	2,198	4,022
Ilagan	4,259	5,816	5,459	11,275
Naguifán ^b	2,172			
Palanan	1,054	483	497	980
Reina Mercedes	2,062	976	831	1,807
Santa María	1,569	1,463	1,379	2,842
Tumanini	5,238	2,289	2,082	437
Total	42,672	24,069	22,815	46,884
Estimated, 1901				48,302
LAGUNA (LA).				
Alaminos		2,374	2,292	4,666
Baños (Los)		1,349	1,404	2,753
Buy		1,179	1,175	2,354
Bíñang		7,358	8,094	15,452
Cavinti		2,900	2,804	5,701
Cabúyao		4,428	4,601	9,029
Calamba		4,628	4,180	8,808
Caláuang		1,607	2,153	3,760
Lilió		2,990	2,985	5,975
Loñgos		641	785	1,426
Luisiana		2,221	2,388	4,609
Lumbang		2,423	2,528	4,951
Mabitac		704	694	1,398
Magdalena		1,478	1,665	3,143
Majajay		3,554	3,632	7,176
Nagcarlan		6,342	7,244	13,586
Pacte		1,438	1,491	2,929
Pagsanjan		3,535	3,589	7,124
Pángil		1,432	1,362	2,794
Páquil		935	891	1,826
Pila		3,058	3,103	6,161

* Not reported in census of 1896.

b Not reported in 1887.

Towns (*pueblos*) in the Philippine Archipelago, by islands or provinces—Continued.

Island or province, by towns or districts.	Partial census, 1896, total.	Total population, combining residents present and resi- dents absent, native and Spanish, 1887.		
		Men.	Women.	Total.
LAGUNA (LA)—continued.				
San Antonio	783	890	1,673	
San Pablo	9,726	9,639	19,365	
San Pedro Tunasán	2,227	2,177	4,404	
Santa Cruz	6,417	6,523	12,940	
Santa María	433	422	855	
Santa Rosa	4,799	4,646	9,355	
Siniloan	2,621	2,667	5,288	
Total	83,480	86,024	169,504	
Estimated, 1901			169,483	
LEPANTO.				
Cervantes	920	8,146	7,880	16,096
Estimated, 1901			46,154	
The census of 1896 states in detail the population of the towns organized after 1887, as it is contained in the following additional table:				
Angaqui	734			
Bagnéen	1,180			
Balaca	263			
Banaso	385			
Banco	520			
Banguitan	450			
Besao	2,055			
Cadanaanan	468			
Cagubalan	149			
Cayán	671			
Cervantes	920			
Dain	336			
Data	841			
Gayán	203			
Guinsadán	749			
Ibanao	630			
Lenga	276			
Lesseb	431			
Luban	690			
Malaya	1,174			
Mancayan	1,469			
Masla	525			
Namatec	186			
Namitpit	568			
Otucan	483			
Pandayan	271			
Pilipil	164			
Pingad	738			
Quinali	171			
Sabáñgan	739			
Sumedel	565			
Suyon	614			
Tacbac	442			
Tadián	735			
Ululin	185			
Vila	628			
Total	21,608			
LEYTE.				
Alang-Álang	3,145	2,958	6,103	
Albuera	1,523	1,307	2,830	
Almeria	1,240	1,160	2,400	
Babatungon	668	654	1,322	
Barugo	4,199	4,094	8,293	
Bató	1,275	1,337	2,612	
Baybay	5,848	5,596	11,441	
Biliran	882	785	1,667	
Burauen	7,242	6,692	13,934	
Cabalian	2,174	1,947	4,121	
Cajagnáán	566	568	1,134	
Capoocan	654	691	1,345	
Carigara	6,553	6,127	12,680	
Caibiran	2,434	2,011	4,445	
Dagami	11,819	11,929	23,748	
Dúiag	4,639	4,454	9,093	
Hilongos	7,848	5,827	13,675	

Towns (*pueblos*) in the Philippine Archipelago, by islands or provinces—Continued.

Island or province, by towns or districts.	Partial census, 1896, total.	Total population, combining residents present and resi- dents absent, native and Spanish, 1887.		
		Men.	Women.	Total.
LEYTE—continued.				
Hinunangan	3,382	3,370	6,752	
Hindang	2,235	2,180	4,415	
Hinundayan	1,788	1,774	3,562	
Inopacan	1,477	1,315	2,792	
Jaro	4,724	4,504	9,228	
Leyte	1,598	1,673	3,211	
Liloan	1,567	1,419	2,986	
Maasin	7,353	7,120	14,473	
Mac-Crohon	2,556	2,329	4,985	
Malibago	425	390	815	
Malitbog	3,887	3,579	7,466	
Maripiñ	807	722	1,529	
Matalom	2,378	2,293	4,671	
Mérida	863	849	1,712	
Naval	1,475	1,360	2,835	
Ormoc	6,776	6,539	13,315	
Palo	8,229	7,826	16,055	
Palompón	2,781	2,984	5,765	
Quiot	959	1,066	2,025	
San Isidro del Campo	1,684	1,461	3,145	
San Miguel	1,315	13,333	2,048	
San Ricardo	1,702	1,375	3,077	
Sogod	2,150	2,334	4,484	
Tacloban	2,505	2,394	4,899	
Tananan	7,264	7,360	14,624	
Tolosa	2,490	2,395	4,885	
Villaba	1,292	1,203	2,495	
Total	138,471	131,284	269,755	
Estimated, 1901			270,491	
MANILA. ^a				
Caloocan	7,289	4,358	4,501	8,859
Malibay	951	882	1,833	
Manila	105,296	63,896	169,192	
Mariquina	10,156	4,870	4,621	9,491
Montalbán	1,689	1,663	3,352	
Muntinlupa	2,138	2,074	4,212	
Navotas, San José de	11,643	6,699	6,145	12,844
Novaliches	1,123	1,043	2,166	
Pandacan	5,005	2,419	2,205	4,624
Paranaque	5,175	4,998	10,173	
Pásig	20,983	9,293	9,256	18,549
Pateros	5,273	2,945	2,817	5,762
Pineda or Pásay	10,007	3,912	3,872	7,784
Píñas (Las)	2,416	2,012	1,946	3,958
San Felipe Neri	6,240	3,766	3,751	7,517
San Juan del Monte	3,802	1,195	1,093	2,288
San Mateo	4,467	2,348	2,293	4,641
San Pedro Macatí	3,351	1,849	1,776	3,625
Santa Ana	1,470	1,491	2,961	
Taguig	11,048	4,995	4,983	9,978
Tambobong	11,160	10,602	21,762	
Total	101,680	179,663	135,908	315,571
Manila, 1901, municipality ^b				250,000
MASBATE AND TICAO.				
Baleno	1,553	698	680	1,378
Catañigan	3,181	848	713	1,561
Magdalena	971	427	419	846
Masbate	3,039	1,203	1,081	2,284
Milagros	5,136	1,480	1,505	2,985
Mobo	2,019	884	899	1,783
Palanas	2,950	1,079	1,054	2,133
San Agustín	1,640	744	707	1,451
San Fernando	4,322	1,289	1,331	2,620
San Jacinto	3,671	1,215	1,254	2,469
Uson	2,862	1,037	929	1,966
Total	31,344	10,904	10,512	21,476
Estimated, 1901				23,069

^a 7 towns, including the capital, not reported in census of 1896.^b The districts outside of Manila are included in the new province of Rizal, organized June, 1901, except Pandacan and Santa Ana, which were annexed to the city of Manila.

Towns (pueblos) in the Philippine Archipelago, by islands or provinces—Continued.

Island or province, by towns or districts.	Partial census, 1896, total.	Total population, combining residents present and residents absent, native and Spanish, 1887.		
		Men.	Women.	Total.
MINDORO.				
Abra de Ilog	1,024	617	544	1,161
Aling or Iling	513	252	234	486
Bacó	755	320	290	610
Boac	14,790	6,593	6,823	13,416
Boñigabon	679	306	262	568
Bulaláceo	717	307	276	583
Calapán	4,333	2,089	2,014	4,103
Caluya	722	285	254	539
Gasán	6,928	2,735	2,701	5,436
Iriron		98	93	191
Looc	1,808	664	645	1,309
Lúbang	4,171	1,866	1,850	3,716
Mambúrao	840	222	186	408
Mañguirín	365	190	167	357
Mansalay	432	173	180	353
Mogpog	6,619	2,513	2,660	5,173
Nauján	4,919	2,277	2,090	4,367
Paluán	1,817	573	804	1,677
Pinamalayan	1,407	309	250	559
Pola	1,614	477	462	939
Puerto Galera	999	424	368	792
Sablayán	599	470	394	864
Santa Cruz		118	81	199
Santa Cruz de Napo	16,106	7,838	7,730	15,568
Semerara	310	148	123	271
Sibay		201	198	399
Subuang	557	212	191	403
Ticlin	384	151	124	275
Torrijos	3,548	1,466	1,443	2,909
Total	76,956	34,194	33,437	67,631
Estimated, 1901				106,200
MISAMIS.*				
Agusan	1,681	571	542	1,113
Aloran	5,306	1,617	1,412	3,059
Alubijid	2,888	1,280	1,269	2,549
Balingasag	4,498	2,515	2,433	4,948
Cagayán		3,221	3,405	6,626
Catarman	5,027	2,094	2,005	4,099
Dapitan		1,878	1,910	3,788
Dipólog		1,701	1,634	3,355
Guingáog	4,807	1,321	1,239	2,560
Guinsíltán	1,561	885	864	1,699
Gusá		345	359	704
Ilaya		737	735	1,472
Iligan	2,398	1,550	1,487	3,037
Initao		610	582	1,252
Iponan	2,797	2,396	2,350	4,746
Jiménez	8,415	3,150	2,840	5,990
Lagonlong	1,827	829	789	1,618
Langáran		2,978	2,683	5,661
Loculán	5,340	2,265	2,108	4,373
Lubuñgan		1,309	1,256	2,565
Mahinog	2,575	2,141	2,032	4,173
Mambajao	9,512	4,480	4,257	8,737
Maria Cristina	1,061	73	65	138
Misamis	6,485	1,989	1,955	3,944
Molugan	1,239	594	576	1,170
Naanán	1,334	647	553	1,200
Oroquieta	11,670	3,773	3,601	7,374
Quinuguitan		751	664	1,115
Sagay		1,578	1,576	3,154
Salay		888	747	1,635
Salvador		1,688	1,605	3,293
Santa Ana		1,075	1,167	2,242
Tagoloan		2,914	2,877	5,791
Talisayan		1,262	1,130	2,392
Jasaán	4,263	1,820	1,791	3,611
Total		58,935	56,528	115,463
Estimated, 1901				126,942

* 15 towns not reported in census of 1896.

Towns (*pueblos*) in the Philippine Archipelago, by islands or provinces—Continued.

Island or province, by towns or districts.	Partial census, 1896, total.	Total population, combining residents present and resi- dents absent, native and Spanish, 1887.		
		Men.	Women.	Total.
MÓRONG. ^a				
Angono.....	1,394	1,117	1,011	2,128
Antipolo.....	3,561	1,968	2,002	3,970
Barás.....	1,217	595	627	1,222
Binangonán.....	8,354	3,946	3,867	7,813
Bosoboso.....	386	340	327	667
Caintá.....	2,207	1,196	1,192	2,388
Cardona.....	2,407	1,318	1,326	2,644
Jalajala.....	1,687	867	861	1,728
Mórong.....	4,919	3,291	3,357	6,648
Píllila.....	2,186	2,140	1,860	4,006
Tanay.....	4,078	2,166	2,183	4,349
Taytay.....	6,396	3,738	3,734	7,472
Teresa.....	1,845	960	933	1,893
Quisao ^b	776			
Total ^c	41,713	23,642	23,280	46,922
NEGROS. ^d				
Amblán.....		2,088	2,091	4,179
Arguelles.....		1,259	1,132	2,391
Ayúñon.....		353	340	693
Ayuquitan.....		1,143	1,100	2,243
Bacolod.....	6,676	3,451	3,391	6,842
Bacón.....		3,196	3,354	7,050
Bago.....		4,252	4,175	8,427
Bais.....		2,622	2,349	4,971
Binalbagan.....	5,884	2,775	2,494	5,269
Cabancalan.....	8,799	2,868	2,912	5,780
Cádiz Nuevo.....	14,020	1,921	1,633	3,554
Calatrava.....		6,644	5,517	12,161
Cauayan.....	2,195	1,146	1,048	2,194
Carlota (Ia).....	10,588	3,370	3,016	6,386
Dandalán.....	1,984	1,501	1,483	2,984
Dauin.....		3,368	3,383	6,751
Dumaguete.....		6,498	6,749	13,244
Escalante.....	6,281	2,048	1,844	3,892
Ginigaran.....	16,011	4,504	4,465	8,969
Granada.....	2,229	764	696	1,460
Guihulngan.....		594	560	1,154
Guiljungan.....	859	1,214	1,161	2,375
Guimbalaoan.....	5,571			
Ilog.....	5,599	2,241	2,316	4,557
Isabela.....	11,245	4,998	4,220	9,218
Isio.....	1,624	1,334	1,153	2,487
Jimamaylan.....	6,842	3,606	3,467	7,073
Jimalalud.....		1,521	1,536	3,057
Manapha.....	8,343	2,362	1,947	4,309
Manjuyod.....		2,242	2,305	4,547
Minilúan or Talisay.....	16,436	3,941	3,620	7,561
Murcia.....	2,346	1,432	1,336	2,768
Nueva Valencia.....		2,692	2,884	5,576
Pontevedra (Marayo).....	6,612	3,572	3,229	6,901
San Enrique.....	3,261	1,750	1,660	3,410
Sarabia.....	15,745	5,164	4,392	9,556
Siaton.....		4,209	4,002	8,210
Sibulan.....		2,931	2,920	5,857
Silay.....	14,349	4,309	3,345	7,654
Siay.....	2,471	847	751	1,598
Símag.....	4,222	2,362	2,063	4,425
Tanjay.....		5,157	5,143	10,30
Tayasan.....		636	695	1,331
Tolón.....		1,563	1,326	2,889
Valladolid.....	14,491	5,142	5,065	10,207
Zamboangnita.....		2,466	2,403	4,869
Total.....	194,873	124,106	117,268	211,374
Estimated, 1901:				
Occidental.....				231,572
Oriental.....				140,498

^a Now a part of the newly made province of Rizal.^b Not reported in 1887.^c Estimated, 1901, under Rizal.^d The returns of 1896 are for Negros Occidental, as separated politically from Negros Oriental, for which no returns were found.

Towns (*pueblos*) in the Philippine Archipelago, by islands or provinces—Continued.

Island or province, by towns or districts.	Partial census, 1896, total.	Total population, combining residents present and resi- dents absent, native and Spanish, 1887.		
		Men.	Women.	Total.
NUEVA ÉCJIA. ^a				
Aliaga	10,641	9,707		20,348
Balingao ^b	1,785	1,724		3,509
Boñagabon	2,124	1,329	1,177	2,506
Cabanatúan		5,047	4,560	9,607
Cabiao	5,917	4,075	3,861	7,936
Carrangán		856	702	1,558
Cuyapo	11,722	4,510	4,192	8,702
Gapán		10,070	10,216	20,286
Jaén ^b		3,190	3,225	6,415
Licab ^b	5,222			
Nampicuán		1,063	933	2,046
Pantabangán		572	614	1,186
Peñaranda		3,435	3,491	6,926
Puncán		280	282	562
Rosales ^b		3,630	3,588	7,168
San Antonio		4,106	4,221	8,327
San Isidro		4,706	4,768	9,474
San Juan		3,044	2,927	5,971
San Quintín ^b		3,817	3,761	7,578
Santa Rosa		1,848	1,875	3,723
Santor		1,599	1,500	3,099
Talavera	1,782	3,216	3,223	6,439
Umingán ^b	7,205	2,554	2,460	5,014
Valle		279	229	508
Zaragoza		3,095	2,812	5,907
Total.	33,972	78,747	76,048	154,795
Estimated, 1901.				156,610
NUEVA VIZCAYA.				
Aritao	617	618	564	1,182
Bugábag	1,518	957	905	1,862
Bambang	2,469	1,422	1,477	2,899
Bayombong	3,654	1,878	1,769	3,647
Diadí		114	55	105
Dúpax	2,582	1,969	1,837	3,806
Ibung	980	273	241	514
Munguia ^d		383		
Solano	4,272	2,731	2,554	5,285
Total.	16,589	9,903	9,397	19,300
Estimated, 1901				60,628
PALAWAN (PARAGUA).				
Bacuit	1,210			
Danlig		297	272	569
Dumarán		1,075	957	2,032
Puerto Princesa		759	586	1,345
Talindán		372	291	663
Taytay		495	439	934
Total.	1,210	2,998	2,545	5,543
Estimated, 1901.				50,000
PRINCIPE.				
Baler	2,208	1,190	1,117	2,307
Casiguran	1,804	906	942	1,848
San José de Casigán	215	97	84	181
Total.	4,227	2,193	2,143	4,336
Estimated, 1901.				10,470
PANGASINÁN. ^e				
Aguilar	4,052	2,404	1,819	4,223
Álava	4,956	2,142	2,011	4,153
Alcalá	8,827	4,733	4,283	9,016
Asinán	9,439	5,907	5,747	11,654
Bayambang	13,808	5,798	5,591	11,389
Binalonan	11,925	4,506	4,620	9,126

^a 18 towns not reported in census of 1896.^b Now conditionally incorporated in Pangasinán Province.^c In 1887 it was a part of Aliaga.^d Not reported in 1887.^e 7 towns not reported in census of 1896.

Towns (*pueblos*) in the Philippine Archipelago, by islands or provinces—Continued.

Island or province, by towns or districts.	Partial census, 1896, total.	Total population, combining residents present and resi- dents absent, native and Spanish, 1887.		
		Men.	Women.	Total.
PANGASINAN—continued.				
Bimualey	14,778	7,559	7,744	15,303
Calasiao	14,058	7,734	7,035	15,369
Dagupan	16,418	9,138	7,662	16,800
Lingayén	15,212	8,233	7,522	15,755
Malasiquí	11,505	5,761	6,994	12,755
Manáoag	13,428	4,714	4,617	9,331
Mangaldán	15,581	6,006	6,781	12,790
Mangataréñ	—	5,443	5,301	10,744
Pozorrubio	10,177	4,837	4,767	9,604
Salas	7,201	2,938	2,907	5,845
San Carlos	23,590	14,650	15,498	30,148
San Fabián	9,451	4,978	4,433	9,411
San Isidro	2,663	2,279	2,061	4,340
San Jacinto	5,006	2,443	2,419	4,862
San Manuel	6,867	5,223	4,941	10,164
San Nicolás	—	6,613	6,130	12,743
Santa Bárbara	7,989	4,836	4,831	9,667
Santa María	4,831	2,554	2,390	4,944
Stal	—	2,121	1,840	3,961
Tayng	—	4,968	4,836	9,804
Urbiztido	—	2,981	3,161	6,142
Urdaneta	—	8,350	8,131	16,481
Villasís	—	4,099	3,289	7,388
Total	231,105	153,948	149,964	303,912
Estimated, 1901	—	—	—	302,178
PAMPANGA.				
Ángeles	—	4,863	4,683	9,546
Apálit	—	5,300	5,298	10,598
Aráyat	—	6,896	7,144	14,040
Bacolor	—	6,321	6,599	12,920
Betis	—	2,066	2,141	4,207
Candaba	—	5,686	5,859	11,542
Florida Blanca	—	3,459	3,195	6,654
Guagua	—	4,983	5,091	10,074
Lubao	—	10,310	10,034	20,344
Mabalacat	—	4,580	4,521	9,101
Macabebe	—	6,307	6,538	12,845
Magálang	—	4,520	4,279	8,799
México	—	7,522	7,199	14,721
Minalin	—	3,138	3,101	6,239
Pírac	—	4,520	4,074	8,594
San Fernando	—	8,075	7,956	16,031
San Luis	—	5,381	5,384	10,765
San Miguel	—	2,820	2,765	5,585
San Simón	—	3,442	3,566	7,008
Santa Ana	—	3,213	3,109	6,322
Santa Rita	—	4,697	3,692	8,389
Santo Tomás	—	1,879	1,902	3,781
Sexmoán	—	3,352	2,937	6,289
Total	—	113,330	111,064	224,394
Estimated, 1901	—	—	—	223,922
ROMBLÓN.				
Azagra	4,039	1,715	1,719	3,434
Badajoz	3,476	1,472	1,406	2,878
Bantón	4,090	1,755	1,683	3,438
Cajidiocán	3,283	1,538	1,695	3,233
Corcuerá	1,981	997	993	1,990
Despujol	2,362	—	—	—
Looc	4,508	2,981	3,032	5,963
Magallanes	1,844	801	772	1,573
Odiongan	5,649	3,369	3,009	6,378
Romblón	7,279	3,104	2,912	6,016
Santa Fe	1,751	—	—	—
Total	40,262	17,682	17,221	34,903
Estimated, 1901	—	—	—	55,339
SÁMAR. ^a				
Balangiga	4,163	1,973	2,039	4,012
Basey	12,846	6,050	6,066	12,116
Bobón	—	2,083	1,928	4,011

*5 towns not reported in census of 1896.

Towns (*pueblos*) in the Philippine Archipelago, by islands or provinces—Continued.

Island or province, by towns or districts.	Partial census, 1896, total.	Total population, combining residents present and residents absent, native and Spanish, 1887.		
		Men.	Women.	Total.
SAMAR—continued.				
Borongan	12,221	4,620	5,149	9,769
Calbayog	13,216	11,120	9,364	20,484
Calbiga	4,091	1,742	1,406	3,148
Capul (or Abag)	3,835	1,748	1,631	3,379
Catarman	9,052	3,650	3,107	6,757
Carbalogan	—	3,386	3,224	6,610
Catubig	11,496	4,691	4,670	9,361
Gandara	13,563	4,713	4,315	9,028
Guian	12,051	5,627	4,956	10,583
Hernani	3,551	1,511	1,629	3,140
Hiabong	—	1,158	917	2,075
La Granja (Minapa)	3,346	1,729	1,518	3,247
Lanang	6,851	1,495	1,539	3,031
Laouang	7,710	3,894	3,421	7,315
Lavezares	3,316	1,807	1,540	3,347
Mercedes	1,552	803	649	1,452
Mondragón	1,556	627	595	1,222
Oquendo	5,704	1,697	1,401	3,098
Orás	6,671	2,533	2,538	5,071
Palápag	5,548	1,923	1,545	3,468
Pambúján	5,849	2,798	2,598	5,396
Paranas	7,643	3,153	2,726	5,879
Páric (Dolores)	4,430	1,315	1,277	2,592
Pinabádiao	—	654	460	1,114
Quinapundán	1,714	901	802	1,708
Salcedo	5,399	1,781	1,686	3,467
San Julián	—	1,484	1,471	2,955
San Sebastián	2,084	964	936	1,900
Santa Rita	2,975	1,315	1,022	2,337
Santo Niño	4,918	—	—	—
Sílat	4,605	2,312	2,332	4,644
Tarangóán (Dapdap)	5,097	2,261	2,065	4,326
Túbig	2,835	1,076	1,220	2,296
Villa Real (Umanas)	5,500	2,659	2,687	5,293
Weyler	2,611	—	—	—
Zumárraga	4,545	2,799	2,666	5,465
Total	202,494	96,049	89,045	185,094
Estimated, 1901	—	—	—	195,386
SORSOGÓN.				
See figures of Province of Albay, of which Sorsogón was a part when the census of 1887 was taken.	—	—	—	—
SURIGAO.				
Anao-aon	556	547	1,103	—
Bacuag	437	414	851	—
Bagaña	592	602	1,194	—
Bislig	436	409	845	—
Bumanán	288	297	585	—
Buttian	2,065	2,063	4,128	—
Cabuntog	989	979	1,968	—
Cantilán	3,082	2,963	6,045	—
Caraga	1,439	1,404	2,843	—
Carrascal	1,014	915	1,929	—
Catel	825	858	1,663	—
Dapá	1,143	1,138	2,281	—
Dapúan	145	130	275	—
Dinágat	1,189	1,154	2,343	—
Gigáquit	2,798	2,755	5,553	—
Ginatnán	1,256	1,238	2,494	—
Jabonga	842	819	1,661	—
Lanuza	1,100	1,107	2,207	—
Liaanga	1,210	1,177	2,387	—
Maynit	1,033	973	2,006	—
Nonoc	337	330	667	—
Numancia	1,370	1,308	2,678	—
Oteyza	771	770	1,541	—
Placer	458	435	893	—
Quinablangán	262	276	538	—
San Juan	173	168	341	—
Sapao	778	770	1,548	—
Surigao	2,493	2,459	4,952	—
Taganaán	1,021	1,005	2,026	—
Tago	1,202	1,214	2,416	—

Towns (*pueblos*) in the Philippine Archipelago, by islands or provinces—Continued.

Island or province, by towns or districts.	Partial census, 1896, total.	Total population, combining residents present and resi- dents absent, native and Spanish, 1887.		
		Men.	Women.	Total.
SURIGAO—continued.				
Talacogon		789	779	1,568
Tándag		1,230	1,213	2,443
Túbay		1,070	1,055	2,155
Total		34,393	33,704	68,097
Estimated, 1901				85,725
TÁRLAC.				
Anao		1,433	1,284	2,717
Bambang		932	878	1,810
Camiling		9,054	8,061	17,115
Capas		958	930	1,888
Concepción		7,003	6,420	13,423
Gerona		4,001	3,799	7,800
Moncada		1,274	1,151	2,425
Moriones		549	531	1,080
Murcia		1,224	1,092	2,316
O'Donnell		902	791	1,693
Paniquí		2,850	2,703	5,553
Paz La		2,067	2,051	4,118
Pura		2,282	2,019	4,301
San Clemente		1,934	920	1,954
Santa Ignacia		750	697	1,447
Tárlac		4,218	3,887	8,105
Victoria		5,259	4,975	10,234
Total		45,790	42,189	87,979
Estimated, 1901				89,339
TAYABAS. ^a				
Alfonso XIII ^b	1,162			
Atimonan	10,747	4,847	4,659	9,506
Caluocán	2,652	955	779	1,734
Candelaria	3,244	1,693	1,668	3,366
Catanaúan		1,969	1,847	3,816
Dolores		1,060	1,043	2,103
Guinayaúgan	2,277	1,196	1,019	2,215
Gumacá	7,606	3,809	3,695	7,504
López		3,938	3,709	7,647
Lucbán	9,930	4,853	5,385	10,238
Lucena	6,399	2,771	2,726	5,497
Macalelón		1,760	1,666	3,426
Maubán	13,140	4,357	4,605	8,962
Mulanay		776	719	1,495
Pagbilao	5,719	2,229	2,295	4,524
Pitogo	2,975	1,353	1,260	2,613
San Narciso	1,389	1,093	1,085	2,178
Sariaya	6,340	3,403	3,709	7,112
Tayabas	13,616	8,069	7,989	16,058
Tiaong	7,564	3,315	3,343	6,858
Unisan	1,779	952	859	1,811
Total	96,539	54,403	54,060	108,463
Estimated, 1901				109,780
TIAGÁN.				
Tiagán		3,862	3,921	7,783
UNIÓN.				
Agoó	10,830	4,441	4,653	9,094
Aringay	7,454	3,458	3,689	7,147
Bacnotan	7,977	3,395	3,443	6,838
Balaóang	9,939	5,827	6,277	12,104
Barang	9,494	4,643	4,974	9,617
Báuang	8,619	3,983	3,903	7,886
Cabá	3,419	1,421	1,481	2,095
Naguilán	10,742	4,810	4,648	9,458
Namacpacán	9,123	4,430	4,419	8,849
Rosario	3,703	1,461	1,373	2,834
San Fernando	14,051	6,033	6,152	12,185

^a 4 towns not reported in census of 1896.^b Not organized in 1887.

Towns (*pueblos*) in the Philippine Archipelago, by islands or provinces—Continued.

Island or province, by towns or districts.	Partial census, 1896, total.	Total population, combining residents present and res- idents absent, native and Spanish, 1897.		
		Men.	Women.	Total.
UNIÓN—continued.				
San Juan.....	10,510	4,705	5,211	9,716
Santo Tomás.....	5,421	2,374	2,489	4,863
Tubao.....	6,793	3,439	3,080	6,519
Total.....	118,075	54,420	55,595	110,015
Estimated, 1901.....				110,164
SULU (JOLÓ).				
Bonígao.....		43	32	75
Sulu.....		556	276	832
Siasi.....		106	40	146
Tataán (Tawi-tawi) ^a	2,598			
Total.....		705	348	1,053
Estimated, 1901.....				22,630
ZAMBALES. ^b				
Agno.....	5,578	2,322	2,239	4,561
Alaminos.....		3,213	3,312	6,525
Alós.....	1,762	563	551	1,114
Anda.....	3,897	1,516	1,398	2,914
Balincaguin.....	2,974	1,228	1,241	2,469
Bani.....		1,723	1,671	3,394
Bolinao.....	5,401	3,540	3,334	6,874
Botolan.....	4,729	1,861	1,869	3,730
Cabarrán.....	2,735	1,429	1,372	2,807
Candelaria.....	3,010	1,329	1,253	2,582
Castillejos.....	3,023	1,844	1,892	3,736
Dasol.....	2,285	1,225	1,200	2,425
Iba.....	3,063	1,688	1,726	3,414
Infanta.....	3,619	1,515	1,536	3,051
Masinloc.....	2,777	1,322	1,389	2,711
Paláuig.....	2,611	1,232	1,289	2,521
San Antonio.....		2,389	2,514	4,883
San Felipe.....		2,112	2,106	4,218
San Fernando.....		240	213	453
San Isidro.....	3,118	1,359	1,264	2,623
San Marcelino.....	3,340	2,155	2,120	4,275
San Narciso.....	7,301	3,603	3,679	7,282
Santa Cruz.....		2,589	2,596	5,185
Subic.....		1,329	1,462	2,791
Total.....	61,223	43,276	43,226	86,502
Estimated, 1901.....				87,295
ZAMBOANGA.				
Ayala.....	2,569	983	757	1,740
Mercedes.....	3,986	1,823	1,631	3,454
Santa María.....	3,030	1,391	1,290	2,681
Tetuán.....	3,580	1,985	1,935	3,920
Zamboanga.....	2,953	2,008	1,795	3,803
Total.....	16,118	8,190	7,408	15,598
Estimated, 1901.....				117,503

^a Other islands not reported. The Moro population does not appear, as it is included in the 166,000 of the inhabitants of Tawi Tawi.

^b 7 towns not reported in census of 1896.

Pueblos (towns) in the Philippine Islands.

[An alphabetical list of pueblos (towns and townships), with the population of each, under the census of 1887 and estimated population 1898-99 for educational purposes, together with the island or province in which situated. A pueblo corresponds rather to a township or a county than to a "town," in the ordinary acceptation of that term in the United States. It embraces an area often of many square miles, through which are scattered small villages, known as "barrios." The census population here given for 1887 and estimate for 1898-1900 therefore represents the number of inhabitants, not only of the (pueblo) name-community (town or village) but of the surrounding "barrios" or districts recognized as appurtenant thereto for local administration, educational, or other purposes.]

Pueblos.	Island, province, or district.	Population estimated 1898-99.	Population, census of 1887.
Abra de Ilog	Mindoro	1,272	1,161
Abúcay	Bataán	7,185	4,798
Abúlug	Cagayán de Luzón	5,880	6,290
Abundao	Benguet		271
Abúyog	Leyte	9,112	
Adaocay	Benguet		631
Agaña (Guam)	Marianas		6,185
Agno	Zambales	5,002	4,561
Agoó	Unión	10,050	9,094
Aguia	Bontoc		251
Aguilar	Pangasinán	4,412	4,223
Agusan	Misamis	934	1,113
Agutaya	Cuyos (Calamianes)	2,046	2,196
Ajuý	Iloilo	1,000	9,388
Alaminos	Laguna	4,600	4,666
Do	Zambales	8,008	6,528
Alang-Alang	Leyte	8,602	6,103
Alap	Bontoc		682
Alava	Pangasinán	6,100	4,153
Albay	Albay	34,000	11,672
Alberique	Dávao		
Albuera	Leyte	4,555	2,830
Alburquerque	Bohol	6,604	6,093
Alcalá	Cagayán de Luzón	5,471	5,056
Do	Pangasinán	8,624	9,016
Alcántara	Cebú	4,080	3,261
Alcoy	...do	5,040	2,658
Alegria	Alegria	11,460	8,877
Alfonso	Cavite	7,660	7,026
Alfonso XII	Abra		
Alfonso XIII	Tayabas		
Aliaga	Nueva Écija	17,000	20,348
Alilem	Amburayan		
Alimodíán	Iloilo	11,837	10,197
Aling	Mindoro		486
Almeria	Leyte	3,216	2,400
Aloquinsán	Cebú	3,993	3,548
Aloran	Misamis	2,700	3,059
Alós	Zambales	894	1,114
Alubijid	Misamis	6,716	2,549
Amadeo	Cavite	3,873	3,283
Amamít	Amburayan		
Ambaycán	Bontoc		206
Ambilán	Negros Oriental	5,500	4,179
Ambuclao	Benguet		536
Ampusíngan	...do		
Amúlung	Cagayán de Luzón		6,708
Ananao	Tiagán		
Anao	Tárlac	7,000	2,717
Anao-aon	Surigao	602	1,103
Anda	Bohol	4,036	3,432
Do	Zambales	3,761	2,914
Angadanán	Isabela de Luzón	2,739	2,188
Angaqui	Lepanto		
Angat	Bulacán	8,050	8,152
Angeles	Pampanga	3,000	9,546
Angono	Rizal	1,955	2,128
Anilao	Iloilo	2,699	3,459
Aniniy	Antique	4,802	4,981
Anquíñan	Bontoc		286
Antadao	...do		329
Antequera	Bohol	5,842	5,777
Antipolo	Mórong (Rizal)	3,500	3,970
Antique	Antique (Panay)	1,236	7,604
Apáilt	Pampanga	11,753	10,598
Apárrí	Cagayán de Luzón	11,262	7,620
Arapiles	Dávao		
Aráyat	Pampanga	14,014	10,040
Arévalo	Iloilo	3,594	3,286

* During the Spanish domination, the Marianas, Carolinas, and Pelew archipelagos were dependent on the Philippine Archipelago politically.

Pueblos (towns) in the Philippine Islands—Continued.

Pueblos.	Island, province, or district.	Population estimated 1898-99.	Population, census of 1887.
Argao	Cebú	34,050	23,122
Arguelles	Negros Oriental	2,390	2,391
Aritúgay	Unión	3,044	7,147
Aritao	Nueva Vizcaya	700	1,182
Asiñgan	Pangasinán	3,522	11,651
Astorga	Dávao	173	
Asturias	Cebú	6,000	6,931
Atimonan	Tayabas	10,000	9,506
Atoc	Benguet		1,418
Ayala	Zamboanga	1,900	1,740
Ayungón	Negros Oriental	1,107	693
Ayuquitan	do	3,171	2,243
Azagra	Romblón	3,980	3,434
Baaó	Ambos Camarines (Sur)	6,759	7,044
Babatungon	Leyte	2,213	1,322
Bacácyay	Albay	10,547	10,240
Bacarra	Ilocos Norte	13,735	13,949
Bacmotan	Unión	6,555	6,888
Bacó	Mindoro	440	610
Bacolod	Negros Occidental	6,268	6,842
Bacolor	Pampanga	10,642	12,920
Bacón	Sorsogón	13,013	14,097
Do.	Negros Oriental	8,371	7,050
Bacoor	Cavite	13,113	11,685
Bacuag	Surigao	569	851
Bacuit	Palawan	1,210	
Bacun	South Ilocos	924	
Badajoz	Romblón	3,234	2,878
Baclayón	Bohol	8,048	7,901
Badián	Cebú	9,409	7,373
Badoc	Ilocos Norte	10,846	11,617
Bagábag	Nueva Vizcaya	1,915	1,862
Bagac	Bataán	1,655	1,997
Bagamánoe	Catanduanes	1,209	
Bagánga	Surigao	1,114	1,194
Bágay	Ambos Camarines (Sur)		1,703
Bagnéen	Lepanto	1,180	
Bago	Negros Occidental	7,092	8,427
Baguió	Ilocos Sur	196	
Bailén	Benguet		655
Baininao	Cavite		4,531
Bais	Bontoc		
Balábac	Negros Oriental	9,304	4,971
Balaca	Balábac		1,834
Bajagbag	Lepanto	263	
Balambán	Benguet		682
Balanga	Cebú	9,610	11,113
Balangiga	Bataán	9,000	8,308
Balaooan (Baláuang)	Sámar	5,000	4,012
Balasan	Unión	12,242	12,104
Balayán	Iloílo		
Baleno	Batangas	14,747	16,214
Baler	Masbate and Ticao	923	1,378
Balete	Príncipe	1,911	2,307
Bailí	Cápiz	5,065	2,323
Balílijan	Bontoc		186
Balincáguing	Bohol	1,860	5,072
Balingasag	Zambales	2,378	2,469
Balinuag	Misamis	11,491	4,948
Balugan	Bulacán	14,122	17,223
Balúngao	Bontoc		582
Bambán	Nueva Écija	3,848	3,509
Bambang	Tárlac	3,196	1,810
Banaao	Nueva Vizcaya	3,387	2,899
Banate	Lepanto	385	
Banaue	Iloílo	6,764	6,252
Banaue	Bontoc		389
Banco	Lepanto		
Bangá	Cápiz	520	
Bangar	Unión	9,127	7,370
Bangued	Abra	9,000	9,617
Bangui	Ilocos Norte	13,417	16,413
Bangúitan	Lepanto	6,129	7,749
Bani	Zambales	450	
Banná	Ilocos Norte	4,293	3,394
Bañolas	Dávao	2,146	4,112
Bantay	Ilocos Sur	6,449	5,750
Bantayán	Cebú	10,016	13,898
Bantón	Romblón	2,449	3,438
Baraoas	Ilocos Sur (Amburayan)	105	
Barás	Rizal (Mórong)	1,217	1,222

Pueblos (towns) in the Philippine Islands—Continued.

Pueblos.	Island, province, or district.	Population estimated 1898-99.	Population, census of 1887.
Barasoain	Bulacán	9,675	9,500
Barbarit	Ilocos Sur (Amburayan)	196	-----
Barbaza	Antique	3,231	8,915
Barcelona	Sorsogón	1,567	4,406
Barili	Cebú	20,914	17,769
Barótac Nuevo	Iloilo	11,805	12,775
Barótac Viejo	do	5,590	6,576
Barugo	Leyte	12,322	8,293
Basey	Sámar	13,736	12,116
Basilan	Basilan	1,300	-----
Basud	Ambos Camarines (Norte)	1,874	1,608
Bátac	Ilocos Norte	-----	16,981
Batán	Cápiz	12,908	10,019
Batangas	Batangas	39,358	35,431
Batangen	Ilocos Sur	433	-----
Batbató	do	119	-----
Bató	Ambos Camarines (Sur)	4,861	4,675
Batuánán	Leyte	3,651	2,612
Bauan	Bohol	1,270	1,288
Báuang	Batangas	39,659	35,645
Bay	Unión	7,701	7,886
Bayambang	Laguna La	1,796	2,354
Bayanan	Pangasinán	8,505	11,389
Baybay	Negros Oriental	-----	-----
Bayombong	Leyte	17,367	11,444
Besao	Nueva Vizcaya	3,691	3,647
Betis	Lepanto	2,055	-----
Betuagan	Pampanga	4,460	4,207
Bigaá	Bontoc	-----	272
Biliran	Bulacán	8,120	7,815
Binalbalgan	Leyte	6,201	1,667
Binalonan	Negros Occidental	5,135	5,269
Binalúngan de Lampón	Pangasinán	10,295	9,126
Binalúngan	Infanta	7,557	6,025
Bimaley	Rizal (Mórong)	7,624	7,813
Bíñang	Pangasinán	13,787	15,303
Bislig	Laguna La	19,786	15,452
Boac	Surigao	7,583	845
Bobón	Mindoro	14,722	13,416
Bocáe	Sámar	4,380	4,011
Bocot	Bulacán	10,345	8,600
Bogó	Benguet	-----	716
Bolinang	Cebú	16,350	15,192
Bolinao	Bontoc	-----	389
Boljoón	Zambales	4,075	6,874
Bombón	Cebú	7,413	5,067
Bolgabón	Ambos Camarines Sur	2,656	2,368
Bolíngao	Mindoro	271	568
Bontoc	Nueva Écija	3,848	2,566
Borbón	Salu (Joló)	-----	-----
Borongan	Bontoc	-----	987
Borongan	Cebú	2,805	3,430
Borongan	Sámar	9,448	9,769
Bosoboso	Rizal (Mórong)	855	667
Botolan	Zambales	4,566	3,730
Búray	Abra	2,461	5,132
Buená Vista	Iloilo	3,497	5,972
Bugasón	Antique	14,104	3,455
Buguey	Cagayán de Luzón	1,120	1,202
Buguias	Benguet	-----	1,113
Buhí	Ambos Camarines Sur	10,000	7,202
Bula	do	2,800	2,958
Bulacán	Bulacán	13,386	11,891
Bulalacao	Mindoro	516	583
Bulan	Sorsogón	11,000	7,936
Bulisan	do	-----	4,666
Bumanan	Surigao	-----	585
Buraen	Leyte	21,290	13,931
Buraanga	Cápiz	3,967	4,281
Bustos	Bulacán	7,025	6,797
Butdán	Surigao	10,543	4,128
Cabá	Butdán	2,000	-----
Cabagán Nuevo	Unión	4,164	2,905
Cabagán Viejo	Isabela de Luzón	6,240	5,843
Cabalán	do	3,633	3,496
Cabatnáután	Leyte	4,785	4,121
Cabancalan	Nueva Écija	12,000	9,607
Cabatúgán	Negros Occidental	7,636	5,780
Cabatútán	Zambales	2,798	2,807
Cabayan	Iloilo	18,177	20,284
Cabiao	Benguet	844	1,236
Cabinti or Cavinti	Nueva Écija	7,924	7,936
	Laguna	5,515	5,704

Pueblos (towns) in the Philippine Islands—Continued.

Pueblos.	Island, province, or district.	Population estimated 1898-99.	Population, census of 1887.
Cabugao.	Ilocos Sur	8,259	11,982
Cabuntog.	Surigao.	4,175	1,968
Cabuyao.	Laguna.	8,888	9,029
Cádiz Nuevo.	Negros Occidental.	7,046	3,554
Cagayán.	Misamis.	9,405	6,626
Cagayancillo.	Antique.	3,000	
Cagsaua.	Albay.	20,449	20,298
Caibiran.	Leyte.	4,153	
Caintá.	Rizal (Mórong).	2,275	2,388
Cajaguán.	Leyte.	260	1,134
Cajidioan.	Romblón.	3,636	3,233
Calabanga.	Ambos Camarines Sur.	5,704	5,497
Calacá.	Batangas.	8,288	12,263
Calamba.	Laguna.	11,476	8,808
Calapán.	Mindoro.	5,585	4,103
Calape.	Bohol.	10,025	8,155
Calasgasan.	Ambos Camarines.	813	
Calasiao.	Pangasinán.	13,753	15,369
Calatagán.	Batangas.	964	2,003
Calatrava.	Dávao.		
Calatrava.	Negros Occidental.	12,720	12,161
Calaoag.	Tayabas.	2,813	1,734
Caláuang.	Laguna.	3,107	3,760
Calbáyog.	Sámar.	30,250	20,484
Calbíga.	do.	4,292	3,148
Calibo or Calivo.	Cápiz.	10,865	12,028
Calinog.	Iloílo.	8,866	7,754
Calolbong.	Albay.	4,382	3,608
Caloocan.	Rizal (Manila).	9,843	8,859
Calumpit.	Bulacán.	15,072	11,613
Caluya.	Mindoro.	509	539
Camálaníugan.	Cagayán de Luzón.	4,198	4,194
Camálig.	Albay.	14,868	14,437
Camaligan.	Ambos Camarines Sur.	5,049	3,465
Camiling.	Tárlac.	23,410	17,115
Canaman.	Ambos Camarines Sur.	5,959	5,422
Cangéo.	Bontoc.		215
Candaba.	Pampanga.	14,585	11,542
Candelaria.	Tayabas.	3,234	3,366
Candelaria.	Zambales.	2,865	2,582
Candijay.	Bohol.	7,872	3,834
Candón.	Ilocos Sur.	15,797	17,971
Canoan.	Bohol.	9,380	8,828
Cantilan.	Surigao.	10,026	6,045
Capalonga.	Ambos Camarines Norte.	1,692	1,134
Capaígán.	Benguet.	853	1,094
Capas.	Tárlac.	2,925	1,888
Cápiz.	Cápiz.	13,676	16,692
Capoocan.	Leyte.		1,345
Capul.	Sámar.	2,295	3,379
Caraga.	Surigao.	8,690	2,843
Caramoran.	Ambos Camarines Sur.	6,697	
Caramoran.	Albay.	908	894
Carranglán.	Nueva Écija.	937	1,558
Cárcar.	Cebú.	30,300	26,039
Cardona.	Rizal (Mórong).	2,641	2,644
Caridad.	Cavite.		5,971
Carig.	Isabela de Luzón.	2,477	1,337
Carigara.	Leyte.	13,732	12,680
Caritan.	Antique.	1,240	9,158
Carlés.	do.	10,300	10,234
Carlota (La).	Negros Occidental.		6,386
Carmen.	Bohol.	3,300	3,170
Do.	Cebú.	6,673	6,638
Carmona.	Cavite.	3,959	3,888
Carrasca.	Dávao.		
Casignán.	Surigao.		1,929
Casiguran.	Príncipe.		181
Castilla.	Sorsogón.	8,662	5,528
Castillejos.	Príncipe.	1,527	1,848
Cataingán.	Sorsogón.	2,353	2,308
Catanañan.	Zambales.	3,357	3,736
Catanduanes Bagamanoc.	Masbate and Ticao.		1,561
Catanduanes Bató.	Tayabas.	4,000	3,816
Catáman.	Albay.		1,300
Catbalogan.	do.		6,732
Catel.	Misamis.	4,874	4,099
Catigbán.	Sámar.	10,482	6,757
Catmón.	Surigao.	6,459	6,610
Catúbig.	Bohol.	3,500	1,663
	Cebú.	2,141	2,005
	Sámar.	6,098	5,429
	Sámar.	9,565	9,361

Pueblos (towns) in the Philippine Islands—Continued.

Pueblos.	Island, province, or district.	Population estimated 1898-99.	Population, census of 1887.
Cañayan	Ilocos Sur	6,050	5,344
Cañayan	Isabela de Luzón	2,115	2,159
Cañayan	Negros Occidental	4,644	2,194
Cavite	Cavite	1,497	2,392
Cavite Viejo	Cavite	9,484	6,302
Caibiran	Leyte		4,445
Cebú	Cebú	35,243	11,198
Cervantes	Lepanto		16,026
Cervera	Dávao		.....
Claveria	Cagayán de Luzón	4,641	3,654
Coloma de Santa Isabel	Isabela de Luzón		1,602
Compostela	Cebú	4,393	4,431
Concepción	Iloilo	5,736	3,872
Consolación	Tárlac	13,499	13,423
Corcueria	Tiagán	353	.....
Córdoba	Cebú	4,616	4,307
Cordón	Romblón	1,995	1,990
Corella	Cebú	5,009	6,329
Cortés	Iloilo	2,744	3,218
Cotabato (Cottabato)	Isabela de Luzón		976
Cristiano	Bohol	4,215	3,735
Cristina	Bontoc	6,018	.....
Quartero	Dávao		.....
Cuénca	Cápiz	5,175	4,623
Culasi	Batangas	6,735	5,644
Culión	Antique	10,553	7,549
Cumugun	Calamianes	3,500	4,277
Cuyapó	Bontoc		339
Cuyo	Nueva Écija	9,350	8,702
Daan Bantayán	Calamianes	8,258	3,903
Dacán	Cebú	8,530	9,621
Dáet	Benguet	967	994
Dagami	Ambos Camarines Norte	10,650	7,993
Dugupan	Leyte	25,000	23,748
Dalaguete	Pangasinán	16,000	16,800
Dalican	Cebú	21,323	19,269
Danao	Bontoc		443
Dancalan	Cebú	15,483	13,575
Dauin	Negros Occidental	1,445	2,984
Daulig	Negros Oriental		6,751
Dao	Palawan (Paragua)		569
Dapá	Antique	7,948	7,549
Dapitan	Cápiz	8,787	5,277
Dapnán	Surigao, Mindanao	1,900	2,281
Dasol	Misamis	3,955	3,788
Danis	Surigao	500	275
Dávao	Zambales		2,425
Despujol	Bohol	8,992	7,248
Diadi	Mindanao	3,308	1,473
Dinmao	Romblón		.....
Dinágat	Nueva Vizcaya	109	105
Dinalupíjan	Bohol	8,014	7,901
Dingle	Surigao, Mindanao	5,264	2,343
Dingrás	Bataán	738	3,784
Dipólog	Iloilo	11,000	12,800
Dolores	Ilocos Norte	12,600	11,669
Do.	Misamis	4,611	3,355
Donsol	Abra	2,970	2,062
Dueñas	Tayabas	2,571	2,103
Dinero	Sorsogón	5,500	5,621
Dilug	Iloilo	7,130	6,339
Dumaguete	Bohol	7,143	5,727
Dumálág	Leyte	10,113	9,093
Dumangas	Negros Oriental	13,613	13,244
Dumanjug	Cápiz	8,000	7,390
Dumarán	Iloilo	14,114	16,736
Dumárao	Cebú	13,171	9,728
Dúpax	Palawan (Paragua)		2,032
Echague	Cápiz	5,085	5,150
Egaña	Nueva Vizcaya	2,229	3,806
El Pardo	Isabela de Luzón	5,700	3,986
El Salvador	Antique	1,995	2,366
Enrile	Cebú	10,647	.....
Escalante	Misamis	2,845	.....
Estancia	Cagayán, Luzón	7,000	5,203
Fidilizan	Negros Occidental	3,000	3,892
Floridablanca	Concepción		.....
	Bontoc	478	246
	Pampanga	7,654	6,654

Pueblos (towns) in the Philippine Islands—Continued.

Pueblos.	Island, province, or district.	Population estimated 1898-99.	Population, census of 1887.
Gainza	Ambos Camarines	2,631	2,900
Galiano	Benguet	1,330	870
Gamú	Isabela de Luzón	6,101	4,022
Gándara	Sámar	15,563	9,028
Gapán	Nueva Écija	20,216	20,286
García Hernández	Bohol	5,064	5,768
Garellano	Dávao		
Gasán	Marinduque	4,785	5,436
Gattaran	Cagayán, Luzón	805	1,211
Gerona	Tárlac	9,261	7,800
Getafe	Bohol	3,397	
Gigáquit	Surigao	7,116	5,553
Ginatilan	Cebú	12,144	9,404
Ginatúan	Surigao	2,277	2,494
Ginggóog	Misamis	1,433	2,560
Ginigaran	Negros Occidental	13,620	8,969
Goa	Ambos Camarines	7,748	5,574
Granada	Negros Occidental	2,864	1,460
Guagua	Pampanga	10,722	10,074
Gúbat	Sorsogón	13,359	12,125
Guerñica	Dávao		
Guibungán	Benguet	685	685
Guiquintó	Bulacán	5,115	5,134
Guihilugan or Guijulugan	Negros Oriental	7,006	1,154
Guiljungán	Negros Occidental		2,375
Guimbal	Iloilo		11,562
Guimbalaón	Negros Occidental		
Guinaón	Bontoc		679
Guinayangán	Tayabas	2,000	2,215
Guindulmán	Bohol	8,063	
Guinobatan	Albay	20,500	19,842
Guinsílitan	Misamis	1,875	1,699
Guisijan	Antique	6,247	3,845
Guian	Sámar	11,311	10,583
Gumacá	Tayabas	7,571	7,504
Gunduhúan	Bohol		6,737
Gusá	Misamis	790	704
Hagonoy	Bulacán	20,120	18,500
Hermosa or Llana Hermosa	Bataán	2,649	3,591
Hernani	Sámar	2,555	3,140
Hilongos	Leyte	13,813	13,675
Hindang	do	5,314	4,415
Hinunángan (Hinanángan)	do	7,899	6,752
Hinundayan	do	3,896	3,562
Iba	Zambales	3,512	3,414
Ibaán	Batangas	8,900	9,017
Ibájay	Cápiz	11,351	12,162
Ibung	Nueva Vizcaya	980	514
Igbarás	Iloilo	12,140	9,952
Iguig	Cagayán	4,000	4,509
Ilagan	Isabela de Luzón	13,811	11,275
Ilaya	Lanao	1,099	
Iligan	Misamis	6,020	3,037
Iling	Mindoro	427	486
Ilog	Negros Occidental	6,070	4,557
Iloilo	Iloilo	6,429	11,364
Imus	Cavite	14,676	12,142
Inabanga	Bohol	9,957	10,344
Inapuy	Bontoc	417	134
Indán	Ambos Camarines	5,800	6,194
Indang	Cavite	1,500	10,848
Infanta	Zambales	3,445	3,051
Initao	Misamis		1,252
Inopacan	Leyte	4,239	2,792
Ipil	Bohol	1,745	1,183
Iponan	Misamis	5,586	4,746
Iriga	Ambos Camarines	17,094	15,229
Iriron	Mindoro	143	191
Irosín	Sorsogón	5,224	4,198
Isabela	Basilan	1,300	985
Isio	Negros Occidental	11,104	9,218
Itogon	do	1,596	2,487
Ivisán	Benguet	609	249
Jabonga	Cápiz	5,000	5,000
Jaén	Surigao	1,644	1,661
Jagná	Nueva Écija	4,651	6,415
Jagnaya	Bohol	11,162	12,267
Jalajala	Cápiz	2,500	2,095
Jamindán	Rizal (Mórong)	1,735	1,728
Janíuay	Cápiz	5,000	881
	Iloilo	28,738	25,743

Pueblos (towns) in the Philippine Islands—Continued.

Pueblos.	Island, province, or district.	Population, estimated 1898-99.	Population, census of 1887.
Jaro	Leyte.	12,475	9,228
Jasaán	Iloílo.	10,333	10,993
Jabong	Misamis.	9,444	3,611
Jimalalud	Sámar.	3,579	2,075
Jimamaylan	Negros Oriental.	5,559	7,073
Jiménez	Negros Occidental.	6,758	3,057
Jimeno	Misamis.	8,707	5,990
Joló (Sulu)	Cápit.	3,278	2,940
Jovellar	Sulu.	1,500	832
Juban	Albay.	5,279	3,563
La Caridad	Sorsogón.	6,000	3,841
La Carlota	Cavite.	1,258	5,971
La Granja	Negros Occidental.	12,384	6,836
La Paz	Sámar.	3,413	3,247
Do.	Abra.	2,869	3,511
Po.	Iloílo.	3,641	3,872
La Trinidad	Tárlac.	2,805	4,118
Labo	Benguet.	2,000	1,589
Lac	Ambos Camarines.	4,213	4,120
Lagabuy	Negros Oriental.	6,448	—
Lagauí	Dávao.		613
Lagonlong	Quiañgan.		
Lagonoy	Misamis.	1,834	1,618
Lagundi	Ambos Camarines.	8,500	10,340
Lal-íó	Rizal (Mórong).		
Lambunao	Cagayán.	6,475	4,294
Lanang	Iloílo.	7,989	7,727
Laarñgan	Sámar.	4,779	3,034
Lanuza	Misamis.	11,779	5,661
Laong	Surigao.		2,207
Laonang	Ilocos Norte.	37,094	30,840
Lapog	Sámar.	8,129	7,315
Las Mercedes.	Ilocos Sur.	6,000	6,826
Las Piñas	Dávao.		
Lauis	Zamboanga.	2,372	3,454
Lavezares	Rizal (Manila).	4,000	3,958
Leganés	Bohol.		7,188
Legaspi	Sámar.	3,480	3,347
Leimery	Iloílo.	2,875	4,552
Do.	Albay.	6,017	7,182
León	Batangas.	2,890	15,386
Leyte	Iloílo.	3,677	2,493
Lezo	...do.	13,950	13,059
Liaán	Leyte.	6,719	3,211
Liaanga	Cápit.	5,500	3,793
Libacao	Batangas.	5,889	4,877
Libunan	Surigao.	6,340	2,387
Libog	Cápit.	3,914	3,783
Libong	Ambos Camarines.	14,512	14,655
Licab	Albay.	6,569	7,116
Ligao	...do.	4,125	4,563
Lili	Nueva Écija.	5,222	—
Lilio	Albay.	17,371	16,980
Liloan	Bohol.	4,470	4,255
Do.	Laguna.	5,000	5,975
Lingayén	Cebú.	8,380	8,041
Linguig	Leyte.	3,982	2,986
Lipa	Pangasinán.	18,886	15,755
Llana Hermosa	Surigao.	6,340	—
Lony	Batangas.	40,733	43,077
Loboc	Bataán.	2,649	3,591
Lobóó	Bohol.	7,169	6,353
Loctugan	...do.	10,174	10,756
Loenlan	Batangas.	6,472	5,125
Louñgos	Cápit.	3,475	2,920
Loo	Misamis.	2,110	4,373
Loooc	Laguna.	1,413	1,426
Loón	Benguet.	916	1,015
López	Mindoro.	1,204	1,309
Loreto	Rombilán.	4,500	5,963
Los Baños	Bohol.	15,365	12,321
Lúabang	Tayabas.	6,412	7,647
Lubao	Surigao.		
Lubungán	Laguna.	2,756	2,753
Luebán	Mindoro.	6,541	3,716
Lucena	Pampanga.	21,175	20,341
Luisiana	Lanao.	5,157	2,565
	Tayabas.	12,755	10,238
	Iloílo.	6,511	5,403
	Tayabas.	7,000	5,497
	Laguna.	3,802	4,609

Pueblos (towns) in the Philippine Islands—Continued.

Pueblos.	Island, province, or district.	Population estimated 1898-99.	Population, census of 1887.
Lumbang	Laguna	4,293	4,951
Lupao	Nueva Ecija	608	.....
Lupi.	Ambos Camarines	765	790
Luzón	Dávao	.....	233
Maasin	Leyte	18,499	14,473
Maayon	Iloílo	9,674	10,476
Mabalacat	Cápiz	1,616	1,980
Mabatang	Pampanga	10,600	9,101
Mabatobató	Bataán	1,766	1,857
Mabitac	Ambos Camarines	849	1,196
Macabebe	Laguna	1,481	1,398
Macalelón	Pampanga	10,400	12,845
Macató	Tayabas	3,000	3,426
Mac-trohon	Cápiz	10,136	6,589
Madalag.	Leyte	5,780	4,985
Madridejos	Cápiz	2,684	3,811
Magálang	Cebú	.....	.....
Magallanes	Pampanga	8,262	8,799
Magárao.	Romblón	1,055	1,573
Magdalena	Sorsogón	2,377	2,588
Magsingal	Cavite	1,200	2,477
Maguflang	Ambos Camarines	5,744	5,663
Mahinog (Maginog)	..... do	2,352	.....
Mainit	Laguna	.....	3,143
Majayjay	Masbate, Tícao	971	846
Malabíyoc	Iloíos Sur	8,446	4,817
Malasiquí	Quifangán	.....	.....
Maláneg.	Misamis	4,687	4,173
Malecón	Bontoc	417	349
Malibago	Laguna	6,528	7,176
Malibay	Cebú	13,113	6,947
Malilipot	Pangasinán	8,900	12,755
Malímao	Cagayán	3,819	2,947
Malitbog	Bontoc	.....	561
Malolos.	Leyte	1,119	815
Mambajao.	Rizal	2,890	1,833
Mambúlao	Albay	5,995	5,243
Mambúrao	..... do	10,296	11,828
Mambúsao	Cápiz	7,571	6,586
Manáong	Leyte	7,906	7,466
Manapla.	Bulacán	14,599	15,706
Mandaué	Misamis	18,000	8,737
Mandurriao	Ambos Camarines	1,182	9 9
Mangaldán	Mindoro	499	408
Mangarin.	Cápiz	11,000	8,525
Mangatarén	Pangasinán	17,500	9,331
Manguirín	Negros Occidental	.....	4,309
Manila	Cebú	15,307	10,118
Manitao	Iloílo	6,749	5,259
Manjúyod.	Pangasinán	16,143	12,790
Mansalay.	Mindoro	2,289	357
Marangondón	Pangasinán	10,146	10,744
Maria.	Ambos Camarines	1,300	697
Do.	Manila	350,000	169,192
Maria Cristina	Albay	1,515	1,588
Maribojoc	Negros Oriental	7,486	4,547
Marilao.	Mindoro	379	353
Maripípi.	Cavite	8,313	8,277
Mariquina	Negros Oriental	5,415	.....
Mariveles	Bohol	.....	4,976
Masbate	Misamis	140	138
Masinloc	Bohol	10,852	10,286
Matalom.	Bulacán	5,075	4,566
Matina	Leyte	1,998	1,529
Matnog	Rizal	10,313	9,491
Mati	Bataán	1,429	1,690
Maubán	Masbate	2,345	2,284
Maynít	Zambales	2,945	2,711
Medellín	Leyte	6,146	4,671
Méndez Núñez.	Dávao	.....	.....
Mercedes	Sorsogón	3,745	3,665
Mérida	Matí	600	535
México	Tayabas	9,268	8,962
Meycauayan	Surigao	4,550	2,006
Miagao	Cebú	8,221	4,961
	Cavite	3,745	3,651
	Sámar	3,068	1,432
	Leyte	897	1,712
	Pampanga	17,099	14,721
	Bulacán	8,119	9,256
	Iloílo	22,100	20,732

Pueblos (towns) in the Philippine Islands—Continued.

Pueblos.	Island, province, or district.	Population estimated 1898-99.	Population, census of 1887.
Milagros.	Masbate.	1,789	2,985
Milaor.	Ambos Camarines.	5,120	5,053
Mina.	Iloilo.	4,357	5,720
Minalabac.	Ambos Camarines.	3,869	3,621
Minalin.	Pampanga.	6,386	6,239
Minglanilla.	Cebú.	6,310	17,904
Minilidan.	Negros Occidental.	11,338	7,561
Misamis.	Misamis.	6,075	3,944
Moalboal.	Cebú.	9,509	5,929
Mobo.	Masbate.	1,896	1,783
Mogpog.	Marinduque.	5,214	5,173
Molo.	Iloilo.	9,547	7,281
Molugan.	Misamis.	1,044	1,170
Moncada.	Tárlac.	7,601	2,425
Mondragón.	Sámar.	1,556	1,222
Montalbán.	Rizal.	3,055	3,352
Morella.	Dávao.		
Moriones.	Tárlac.	1,289	1,080
Morón.	Bataán.	2,622	2,653
Mórong.	Mórong (Rizal).	9,430	6,648
Mulanay.	Tayabas.	325	1,495
Munguía.	Bontoc.		
Muntinlupa.	Rizal.	5,068	4,212
Murcia.	Negros Occidental.	8,000	2,768
Do.	Tárlac.		2,316
Naanán.	Misamis.	890	1,200
Nabua.	Ambos Camarines.	17,789	17,244
Naga or Nueva Cáceres.	do.	11,550	9,251
Naga.	Cebú.	10,926	10,525
Nagaba.	Iloilo.	8,000	5,794
Nagcarlán.	Laguna.	12,976	13,586
Nagpartian.	Ilocos Norte.	1,985	3,477
Naguilian.	Isabela de Luzón.	2,172	
Do.	Unión.	10,405	9,458
Náig.	Cavite.	9,215	8,078
Nalupú.	Antique.	2,972	2,861
Namapacáan.	Unión.	8,630	8,849
Nampicúan.	Nueva Écija.	3,241	2,046
Narvacán.	Ilocos Sur.	16,500	18,393
Nagsíping.	Cagayán.	1,023	964
Nasugbú.	Batangas.		7,838
Nauján.	Mindoro.	8,312	4,367
Naval.	Leyte.	3,183	2,835
Navas.	Cápiz.	5,257	4,214
Navotas.	Rizal.		12,844
Nonoc.	Surigao.	541	667
Norzagáray.	Bulacán.	5,305	6,111
Novalches.	Rizal.	1,871	2,166
Noveleta.	Cavite.	2,804	2,214
Nueva Cáceres.	Cebú.	3,339	5,104
Nueva Coveta.	Ilocos Sur.	789	435
Nueva Valencia.	Negros Oriental.	6,316	5,576
Numancia.	Cápiz.	6,123	6,111
Do.	Surigao.	4,111	2,678
Óas.	Albay.	10,357	10,949
Obando.	Bulacán.	7,948	7,576
Odióñigan.	Rombón.	5,924	6,378
O'Donnell.	Tárlac.		1,693
Olongapó.	Zambales.		
Opol.	Misamis.		
Opón.	Cebú.	11,506	10,267
Oquendo.	Sámar.	5,200	3,098
Orán.	Dávao.		
Orani.	Bataán.	6,400	5,949
Orás.	Sámar.	5,667	5,071
Orión.	Bataán.	10,373	7,429
Ormoc.	Leyte.	8,107	13,315
Oroquieta.	Misamis.	9,000	7,374
Oslob.	Cebú.	6,013	5,664
Oteiza (Oteyza).	Surigao.		1,541
Otón.	Iloilo.	13,363	14,567
Oyanguren.	Dávao.		
Páete.	Laguna.	2,887	2,929
Pagbilao.	Tayabas.	5,756	4,524
Pagsanján.	Laguna.	6,327	7,124
Palanan.	Isabela de Luzón.	1,137	980
Palanas.	Masbate.	2,749	2,133
Palánog.	do.		
Palápag.	Sámar.	5,802	3,468
Paláuig.	Zambales.	2,584	2,521
Palma.	Benguet.	704	392

Pueblos (towns) in the Philippine Islands—Continued.

Pueblos.	Island, province, or district.	Population estimated 1898-99.	Population, census of 1887.
Palo	Leyte	17,736	16,055
Palompón	do	7,858	5,765
Paltoc	Tiágán	770	—
Palúan	Mindoro	1,561	1,677
Pambújan	Sámar	7,423	5,396
Paminuitan	Bohol	—	5,199
Pamplona	Ambos Camarines	3,647	3,253
Panay	Cagayán	2,404	4,929
Pandacan	Cápit	15,484	19,343
Pandán	Manila City	2,446	4,624
Pañgil	Antique	13,737	10,654
Panglao	Catanduanes (Albay)	2,153	1,884
Paniquí	Laguna	2,459	2,794
Panítan	Bohol	6,795	4,272
Pantabañgán	Tárlac	8,712	5,553
Páoay	Cápit	10,020	6,455
Paombong	Nueva Ecija	1,513	1,186
Páquil	Ilocos Norte	11,848	12,147
Paracale	Bulacán	10,297	8,177
Parañaque	Laguna	1,719	1,826
Paranas	Ambos Camarines	3,211	2,762
Páric or Dolores	Rizal	9,863	10,173
Pasacao	Sámar	7,366	5,879
Pásig	do	3,469	2,592
Passi	Ambos Camarines	1,548	1,413
Pastrana	Rizal	22,000	18,54
Pasquín	Iloílo	13,802	8,629
Patnóngon	Leyte	—	—
Pateros	Ilocos Norte	5,616	7,262
Pavia	Antique	5,911	6,239
Payo	Rizal	2,842	5,762
Peñaranda	Iloílo	10,221	7,924
Peña plata	Catanduanes	2,800	1,737
Pérez Dasmariñas	Nueva Ecija	7,700	6,926
Piat	Dávao	—	—
Pidigan	Cavite	4,696	4,339
Piddig	Cagayán	2,716	2,591
Pila	Abra	2,142	2,873
Pilar	Ilocos Norte	10,841	7,828
Do	Laguna	5,987	6,101
Do	Abra	4,107	1,564
Do	Bataán	3,471	3,749
Do	Cápit	2,895	4,833
Pili	Cebú	4,268	4,281
Pililla	Sorsogón, Albay	5,458	4,550
Pinabádgao	Ambos Camarines	3,635	3,057
Pinamalayan	Mórong (Rizal)	2,000	4,000
Pinamungájan	Sámar	1,975	1,114
Pineda now Pásay	Mindoro	292	559
Piquigán	Cebú	5,378	4,443
Pítogo	Rizal (Manila)	9,825	7,784
Placer	Bontoc	—	293
Polá	Tayabas	3,011	2,613
Polangui	Suriagao	—	893
Pollilo	Mindoro	572	939
Polo	Albay	10,050	9,106
Pollok	Infanta	1,400	1,114
Pontedera	Bulacán	7,945	10,162
Do	Cotabato	400	390
Poquitan	Cápit	9,512	6,491
Pórac	Negros Occidental	12,000	6,901
Poro	Bontoc	—	439
Pototan	Pampanga	8,512	8,594
Pozorrubio	Cebú	7,000	6,932
Puerto Galera	Iloílo	14,512	20,912
Puerto Princesa	Pangasinán	9,947	9,604
Pulilan	Mindoro	1,912	792
Puncán	Palawan (Paragua)	1,589	1,345
Pura	Bulacán	10,058	9,869
Quinablangán	Nueva Ecija	501	562
Quinapundan	Tárlac	5,255	4,301
Quináquil or Quing-áquing	Mati	299	—
Quinuguitan	Sámar	2,000	1,703
Quiníguá	Bontoc	512	290
Quiot	Misamis	1,320	1,415
Quipayo	Bulacán	8,854	7,312
Ragay	Leyte	2,422	2,025
Reina Mercedes	Ambos Camarines	1,793	1,915
Romblón	do	2,300	1,703
	Isabela de Luzón	3,286	1,807
	Romblón	6,764	6,016

Pueblos (towns) in the Philippine Islands—Continued.

Pueblos.	Island, province, or district.	Population estimated 1898-99.	Population, census of 1887.
Roquetas	Dávao	11,519	7,168
Rosales	Nueva Ecija	12,435	14,376
Rosario	Batangas	6,385	6,076
Do.	Cavite	2,246	2,834
Do.	Unión	4,394	4,339
Ronda	Cebú	851	864
Sablayán	Ilocos Sur	543	
Sablán	Benguet	5,066	3,154
Sagay	Misamis	3,985	
Sagñay	Ambos Camarines	7,067	5,845
Satasa	Pangasinán	1,816	1,635
Salay	Misamis	914	1,802
Salcedo	Ilocos Sur	4,470	3,467
Sacasaacan	Sámar		25
Sadanga	Bontoc		568
Sagada	do		1,090
Salvador	do		3,293
Sámal	Misamis	5,233	4,938
Samboan	Bataán	10,422	7,052
Sauquí	Cebú	545	532
San Agustín	Boutoc	1,129	1,451
San Antonio	Mashate	1,649	1,673
San Bartolomé	Laguna	7,269	8,327
San Carlos	Nueva Ecija	4,988	4,853
San Carlos de Marigatao	Batanes	1,722	1,355
San Clemente	Pangasinán	23,934	30,148
San Dionisio	Batanes	1,229	1,236
San Emilio	Tárlac	1,875	1,954
San Enrique	Coucepción	1,782	4,375
San Esteban	Tiagán	109	
San Fabián	Ilóílo	3,015	3,084
San Felipe	Negros Occidental	3,607	3,410
San Felipe Nery	Ilocos Sur	2,132	2,821
San Fernando	Pangasinán	9,018	9,411
San Fernando (Rivera de)	Zambales	4,265	4,218
San Francisco	Rizal	5,466	7,517
San Gregorio	Ambos Camarines	3,271	3,068
San Ildefonso	Cebú	12,155	12,967
San Isidro del Campo	Mashate	2,367	2,620
San Isidro	Pampanga	13,266	16,031
San Jacinto	Unión	12,892	12,185
San Joaquín	Zambales		453
San José	Cavite	9,055	8,396
San José de Buenavista	Cebú	6,567	6,486
San José de Casigñán	Abra	1,429	1,231
San José de Ibaña	Bulacán	6,601	7,262
San José de Manabó	Ilocos Sur	2,033	2,584
San José de Navotas	Leyte	3,352	3,145
San Juan	Nueva Ecija	7,056	9,474
San Juan (de Guimba)	Pangasinán	2,531	4,340
San Juan (de Macapilay)	Zambales	2,863	2,623
San Juan del Monte	Mashate	2,459	2,469
San Julián	Pangasinán	5,059	4,862
San Leonardo	Ilóílo	13,918	12,516
San Luis	Ambos Camarines	9,000	7,903
San Manuel	Batangas	10,000	9,874
San Marcelino	Bulacán	2,397	2,760
San Mateo	Corregidor	514	458
San Juan (de Guimba)	Ilóílo		
San Juan (de Macapilay)	Nueva Ecija	852	
San Juan del Monte	Antique	5,621	6,634
San Julián	Priuicípe	267	
San Leonardo	Batanes	1,951	2,237
San Luis	Abra	1,285	818
San Manuel	Manila (Rizal)	9,154	
San Marcelino	Abra	1,146	714
San Mateo	Batangas	14,017	11,168
San Juan (de Guimba)	Bohol		5,428
San Juan (de Macapilay)	Nueva Ecija	2,994	5,971
San Juan del Monte	Negros Oriental	5,979	
San Julián	Surigao		341
San Leonardo	Unión	10,211	9,716
San Luis	Manila (Rizal)	2,011	2,288
San Mateo	Sámar	3,616	2,955
San Juan (de Guimba)	Nueva Ecija		
San Juan (de Macapilay)	Batangas	5,201	5,899
San Juan del Monte	Pampanga	10,298	10,765
San Julián	Pangasinán	6,867	10,164
San Leonardo	Zambales	4,043	4,275
San Luis	Rizal	6,700	4,641

Pueblos (towns) in the Philippine Islands—Continued.

Pueblos.	Island, province, or district.	Population estimated 1898-99.	Population, census of 1887.
San Miguel or Sarrat.....	Ilocos Norte.....	9,015	11,251
	Iloilo.....	7,300	6,830
	Leyte.....	4,126	2,648
	Pampanga.....	1,887	5,585
	Bulacán.....	20,460	19,397
	Ilocos Norte.....	9,578	13,056
San Miguel de Mayumo.....	Cebú.....	17,800	21,586
San Nicolás.....	Pangasinán.....	10,204	12,743
San Narciso.....	Tayabas.....	1,087	2,178
San Pablo.....	Zambales.....	7,255	7,282
San Pascual.....	Laguna.....	19,587	19,365
San Pedro.....	Burias.....	1,601	1,690
San Pedro Macatí.....	Antique.....	7,366	6,830
San Pedro Tunasán.....	Rizal.....	3,921	3,625
	Laguna.....	3,700	4,404
San Quintín.....	Abra.....	725	968
	Nueva Écija.....	6,852	7,578
San Rafael.....	Bulacán.....	8,469	10,149
San Ramón.....	Dávao.....		
San Remigio.....	Antique.....	2,503	3,505
San Ricardo.....	Cebú.....	6,192	6,681
San Roque.....	Leyte.....		3,077
San Sebastián.....	Cavite.....	3,182	5,667
San Simón.....	Cebú.....		2,442
Sanchez Mira.....	Sámar.....	839	1,900
Santa.....	Pampanga.....	7,817	7,088
Santander.....	Cagayán.....	2,998	-----
Santa Ana.....	Ilocos Sur.....	8,582	8,700
Santiago.....	Cebú.....	4,686	3,820
Santa Ana.....	Manila City.....	2,194	2,961
Santa Bárbara.....	Ilocos Sur.....	4,087	4,123
Santa Catalina.....	Misamis.....	881	2,212
Santa Cruz.....	Pampanga.....	6,132	6,322
Santa Cruz de Malabón.....	Iloilo.....	13,000	15,167
Santa Cruz de Mindoro.....	Pangasinán.....	7,595	9,667
Santa Cruz de Napo.....	Ilocos Sur.....	5,100	5,167
Santa Fe.....	Dávao.....		714
Santa Ignacia.....	Laguna.....	13,141	12,940
Santa Isabel.....	Ilocos Sur.....	5,876	7,656
Santa Lucía.....	Zambales.....	4,594	5,185
Santa María.....	Mindoro.....	8,546	7,453
Santa María de Caboán.....	do.....	300	199
Santa María de Mayán.....	Cebú.....	15,797	15,568
Santa María de Pandi.....	Romblón.....	3,102	2,936
Santa Margarita.....	Tárlac.....	1,751	-----
Santa Rita.....	Bulacán.....	1,374	1,447
Santa Rosa.....	Ilocos Sur.....	8,125	6,520
Santo Domingo.....	Ilocos Sur.....	7,113	7,566
Santo Domingo de Basco.....	Isabela de Luzón.....	10,030	12,622
Santo Niño.....	Pangasinán.....	2,607	2,842
Santor.....	Zamboanga.....	3,939	4,944
Santo Tomás.....	Laguna.....	2,200	2,681
San Vicente.....	Batanes.....	840	855
San Vicente de Saptang.....	Bulacán.....	1,855	715
Sapao.....	Sámar.....	10,508	9,476
Sapián.....	Pampanga.....	7,359	8,389
Sara.....	Sámar.....	4,394	2,337
Saravia.....	Laguna.....	9,434	9,355
Sariáya.....	Nueva Écija.....	4,324	3,723
Sebaste.....	Ilocos Sur.....	8,931	8,114
Semerara.....	Nueva Écija.....		
	Batanes.....	2,981	3,269
	Cagayán.....	2,891	3,303
	Sámar.....	4,918	-----
	Nueva Écija.....	2,921	3,099
	Batangas.....	10,769	11,039
	Pampanga.....	4,321	3,781
	Unión.....	6,481	4,863
	Ambos Camarines.....	1,325	869
	Ilocos Sur.....	5,237	5,469
	Batanes.....	1,753	1,791
	Quiangán.....		-----
	Surigao.....	1,300	1,548
	Cápiz.....	4,863	3,181
	Concepción.....	10,950	6,451
	Negros Occidental.....	13,304	9,556
	Tayabas.....	6,966	7,112
	Antique.....	3,676	4,391
	Mindoro.....	189	271

Pueblos (towns) in the Philippine Islands—Continued.

Pueblos.	Island, province, or district.	Population estimated 1898-99.	Population, census of 1887.
Sevilla	Bohol	5,920	5,337
Sexmoán	Ilocos Sur	1,133	1,495
Siasl	Pampanga	7,969	6,289
Siaton	Sulu		146
Sibay	Negros Oriental	8,142	8,210
Siboinga	Mindoro	252	399
Sibalón	Cebú	28,455	22,979
Sibisibú	Antique	11,675	12,285
Sibulan	Tiagán		
Sierra Bullones	Negros Oriental	6,346	5,857
Sigáboy	Bohol	2,119	1,460
Sigma	Malabang	900	
Silang	Antique	1,660	4,960
Silay	Cavite	7,411	7,224
Sináit	Negros Occidental	14,537	
Sinilóan	Ilocos Sur	6,936	7,503
Sípocot	Laguna	5,659	5,288
Siquijor	Ambos Camarines	1,066	1,069
Siquijor	Bohol		9,211
Siquijor	Negros Oriental	11,788	7,654
Siruma	Ambos Camarines	679	533
Sógod	Cebú	6,719	5,873
Sógod	Leyte	4,722	4,484
Solana	Cagayán	5,578	6,087
Solano	Nueva Vizcaya	4,190	5,285
Solsona	Ilocos Norte	3,991	4,150
Sorsogón	Sorsogón	10,720	10,313
Sual	Pangasinán	2,636	3,961
Suay	Negros Occidental	2,972	1,598
Sabang	Mindoro	397	403
Sibíe	Zambales	3,016	2,791
Sílat	Sámar	4,615	4,644
Súmag	Negros Occidental	4,332	4,425
Surigao	Surigao	6,285	4,952
Taal	Batangas	33,378	22,039
Tabaco	Albay	17,436	16,655
Tabogón	Cebú	8,631	7,773
Tabontabón	Leyte		
Tacón	Bontoc	645	341
Taclobán	Leyte	5,226	4,899
Taganaán	Surigao	1,562	2,026
Tagbilarán	Bohol	8,638	7,628
Tago	Surigao	1,909	2,416
Tagoloan	Misamis	3,378	5,791
Tagudín	Ilocos Sur	4,055	3,797
Taguig	Rizal	9,662	9,978
Talacogon	Butúan		1,568
Talambán	Surigao	11,585	
Talavera	Cebú	6,226	7,218
Talindac	Nueva Ecija	2,720	6,439
Talibón (Talibong)	Palawan		663
Talisy	Bohol	7,321	4,011
Talisay	Ambos Camarines	3,567	3,419
Talisay	Batangas	8,111	6,805
Talisay	Cebú	19,000	16,089
Talisay	Misamis	1,684	2,392
Talisay	Bontoc		611
Talibing	Rizal	25,000	21,762
Tambóbong	Cotabato	1,900	1,258
Tamontaca	Batangas	20,036	20,452
Tanauan	Leyte	18,509	14,621
Tanay	Rizal	4,529	4,349
Tandag	Surigao	5,210	2,443
Tanganan	Cápiz	2,982	3,137
Tanjay	Negros Oriental	12,408	10,300
Tanólo	Bontoc	492	251
Tapás	Cápiz	2,892	2,486
Tarangnán	Sámar	3,950	4,326
Tarifa	Dávao		
Tárlac	Tárlac	9,668	8,105
Tayabas	Tayabas	15,000	16,058
Tayasan	Negros Oriental	1,569	1,381
Taysán	Batangas	6,971	7,204
Taytay	Rizal	6,800	7,472
Taytay	Palawan	2,331	934
Tayug	Pangasinán	19,612	9,804
Tayum (Tayún)	Abra	3,436	3,201
Teresa	Rizal	4,250	1,893
Ternate	Cavite	1,828	2,371
Tetupan	Bontoc	1,340	1,037
Tetuán	Zamboanga	5,643	3,920

Pueblos (towns) in the Philippine Islands—Continued.

Pueblos.	Island, province, or district.	Population estimated 1898-99.	Population, census of 1897.
Tiagán	Tiagán	7,783	
Tiaong	Tayabas	6,950	6,858
Tibiao	Antique	5,402	6,201
Ticlin	Mindoro	384	275
Tigao	Surigao	1,909	
Tigaon	Ambos Camarines	4,100	3,079
Tigbauan	Iloilo	9,109	9,904
Timamana	Surigao		
Tinambac	Ambos Camarines	2,497	2,615
Tiuí, or Tivi	Albay	10,215	10,163
Toledo	Cebú	10,922	8,520
Tolón	Negros Oriental	1,514	2,889
Tolosa	Leyte	5,587	4,885
Torrijos	Surigao		
Trinidad	Marinduque	3,119	2,909
Tuao	Benguet	1,409	1,589
Tubao	Cagayán	4,986	4,800
Túbay	Unión	6,793	6,519
Túbig	Surigao	505	2,155
Tubigón	Sámar	3,378	2,296
Tublay	Bohol	15,855	11,612
Tubungan	Benguet	996	1,182
Tuburan	Iloilo	4,368	5,317
Tudela	Cebú	10,760	8,264
Tuguegarao	do		
Tumauini	Cagayán	16,826	19,277
Tucuean	Isabela de Luzón	4,814	4,571
Tuy	Bontoc	407	403
Ubay	Batangas	10,150	11,011
Ubong	Bohol	3,552	3,639
Umgáian	Nueva Yizcaya	977	
Unisan	Nueva Ecija	5,848	5,014
Urbiztondo	Tayabas	3,155	1,811
Urdaneta	Pangasinán	5,182	6,142
Usón	do	16,588	16,481
Valderrama	Masbate	2,105	1,966
Valencia	Antique	4,372	4,426
Valladolid	Bohol	6,904	7,032
Valle	Negros Occidental	14,000	10,207
Vega	Nueva Ecija		508
Vera	Catanduanes	2,896	2,927
Veruela	Dávao		
Victoria	Butdán		
Vigan	Tárlac	10,362	10,234
Vilar	Ilocos Sur	19,000	14,249
Villaba	Bohol	6,665	6,243
Villa-Real	Leyte	3,257	2,495
Villasís	Sámar	6,091	5,293
Villavieja	Pangasinán	11,968	7,383
Vintar	Abra	859	2,149
Virac (Birac)	Ilocos Norte	11,803	9,178
Zamboanga	Catanduanes	5,832	5,427
Zamboanguita	Mindanao	21,300	3,803
Zaragoza	Negros Oriental	5,603	4,869
Zárraga	Nueva Ecija	5,250	5,907
Zumárraga	Zambales		
	Iloilo	5,208	5,687
	Sámar	4,561	5,465

THE PHILIPPINE PEOPLE.

The native inhabitants of the Philippine Islands may be classified as follows: Negritos, Indonesians, Malayans, European Mestizos.

Negritos.—These are generally supposed to have been the first inhabitants of the islands, having come from New Guinea. As the name indicates, they are of small size and black color. They live in the mountain forests, where they were driven back by later invaders. There are Negritos of pure blood, like those which inhabit the mountains of Bataán, and the Mamanus, the true aborigines of the island of Mindanao. There are other Negritos of mixed blood, and to this class belong the Negritos of Albay, Ilocos Norte and Sur, Tayabas,

Ambos Camarines, Nueva Écija, Ilóilo, and Negros; the Manguianes of Mindoro, Tablas, Masbate, and Ticao; the Aetas of Pangasinán and Zambales; the Buquiles of Mindoro and Zambales; the Igorrotes and the Attás.

Indonesians.—The native inhabitants of the island of Mindanao who are not either Negritos or Malays belong to the Indonesian race. Their characteristics are considerable height, great muscular development, prominence of the occipital region, high forehead, aquiline nose slightly curved, wavy hair, abundant beard, and light color. The Indonesians of pure or nearly pure blood are divided into different tribes, called Bagobos, Guiangas, Atas, Tagucaolos, Manolos, Mandayas, and Cataganes. The Indonesians of mixed blood are also divided into several groups, as the Samales, Tagabanas, Bilanes, Manguangas, Dulanganes, Tagabalíes, Monteses, Subanos, and Tirurayes.

Malayans.—The Malayan race is the most largely represented in the population. It is at present not found in any part of the archipelago in a pure state, but is always more or less mixed with other races, Negritos, Chinese, Japanese, Indonesians, and Europeans. The Philippine-Malays may be divided in three great groups: Christian Malays, Pagan Malays, and Mohammedan Malays or Moros. The Christian Malays are the Tagalogs, gathered about Manila and in some of the most highly civilized provinces of the Philippines to the number of about 1,500,000; the Bicols, who inhabit Sorsogón, Albay, Ambos Camarines, and a part of Tayabas; the Visayans, who, to the number of 2,500,000, spread over the group of islands bearing the same name, and since very early times have been establishing themselves on the coast of Mindanao; the Pampangos, the Pangasináns, and the Ilocanos, who inhabit the provinces of Pampanga, Pangasinán, and Ilocos, respectively. The Pagan-Malays are the Címarrones, who inhabit the peninsula of Camarines; the Tinguianes or Itanegs, who live in Lepanto and Abra; the Ifugaos, who inhabit the Cordillera of the eastern Caraballo; the Catalanganes, who live along the eastern branch of the river Ilagan in the province of Isabela de Luzón; finally the Manguianes, who inhabit the island of Mindoro. The Malay Mohammedans are divided into several tribes, as the Moros, who occupy Sulu, Tawi-Tawi, and Palawan (Paragua) to the number of 40,500, Sulu being the political, religious, and commercial center of all the Moros; the Moros of the Rio Grande, Lanao Lake, and Illana Bay, about 200,000; the Moros living along the Gulf of Dávao, who have an admixture of Indonesian blood; the Sanguiles, who occupy a strip along the southern coast of Mindanao from Culut to the Gulf of Sarangani; the Lutangas, who inhabit the little island of Olutanga; the Calibuganes, who are found in small groups along the shore of the Gulf of Sibuguey; the Samales-Laut, who inhabit the coast region of Basilan; the Yacanes, who occupy the interior of that island.

European Mestizos.—These are the product of intermarriage between natives and Europeans, principally Spaniards, their number having become large since the beginning of Spanish domination. They are to be found in all regions which have been reached by the commerce of Europe, but they are particularly numerous at the capital and vicinity, as well as in the various provincial capitals and more important towns.

RACES.

The inhabitants, ethnologically arranged under the three distinct races named, are known by 84 tribal names or habitats, viz:

Negritos.—The earlier, if not the aboriginal, occupants of the entire archipelago are subdivided under 21 tribal names, having their habitat in the highest mountain and inaccessible parts of Luzón, Pangasinán, Cagayán, Zambales, Bataán, Albay, Ilocos (North and South), Tayabas, Ambos Camarines, Nueva Écija, Mindoro, Mindanao, Mainit Lake, Surigao, Tago Mountain, Tablas, Sibuyán, Masbate, Ticao, Panay (Iloílo), Negros. Estimated at 25,000.

Indonesian.—Confined to Mindanao under 16 tribal names. Estimated at 252,200.

Malayan.—Recognized under 47 race and tribal names, many dwelling in the most inaccessible mountain elevations and forests of Luzón, Zambales, Ilocos (North and South), Ambos Camarines, Nueva Écija, Tayabas, Albay, Lepanto, Cagayán, Isabela, Príncipe, Nueva Vizcaya, Abra, Pampanga, Benguet, Rizal, Pangasinán, Mindoro, Sibuyán, Visayan Islands, Mindanao, Basilan, Palawan, Calamianes group, Sulu Archipelago. Census and estimated at 5,699,400.

The dominant races, the **VISAYAS** 2,601,600, **TAGALOGS** 1,663,900, **BICOLES** 518,100, **ILOCANOS** 441,700, **PANGASINANES** 365,500, **PAMPANGOS** 337,900, **CAGAYANES** 166,300, and **MOROS** 100,000, exclusive of **MINDANAO**, are of this blood.

Chinese in the Philippines.—The following, in the absence of definite information on the subject, may be considered an approximate exhibit of the number of Chinese in the Philippine Islands.

[Under the census of 1887.]

	Men.	Women.	Total.
Residents present, foreign	33,458	456	33,914
Transients, foreign, presumably of European and American nationalities.	932	21	953

[Under the parochial enumeration of population of the Philippine archipelago (and the Marianas) at the close of 1885, compiled by the Archbishop of Manila.]

Foreigners enumerated, Chinese	37,585
From other nations	527
Total	38,112

In 1888, coincident with the movement in the United States, an effort was made by Spain to exclude the Chinese from the Philippines, but without success. In September, 1898, during the cessation of hostilities under the protocol, by order of the military governor, the Chinese exclusion acts of the United States were made operative in the Philippines. Since that time only former residents and the exempt classes have been admitted. Under these conditions from January 1, 1899, to and including May, 1901, 28,758 Chinese arrived at Manila. Of these, 27,697 were permitted to land. During the same period 23,658 Chinese took their departure, leaving an increase of 4,029 arrivals over departures for that period. The Schurman commission of investigation (Report, vol. 1, Jan. 31, 1900, Senate Doc. 138, Fifty-sixth Congress, first session, p. 153) gives the figures at about 40,000 in the archipelago, of whom about 23,000 live in

Manila. During the Spanish régime between 10,000 and 12,000 entered Manila and 7,000 to 8,000 went back to China each year. Of the latter, many returned after 4 or 5 months' absence. This report adds: "There are about 2,000 Chinese women in Manila. Some of these are married, but most of them are concubines. About 100 or 200 Chinese children are annually born in Manila. About 300 Chinese die every year. Many Chinese men marry Filipino women. The second generation is called 'Mestizos,' who are said to be intelligent men, but are restless, scheming, and untrustworthy." From the above we have—

Parochial enumeration of population, 1885	37,585
Average annual net increase of arrivals over departures, 1885-1899, 14 years, 1,000 per annum..	14,000
Increase under United States jurisdiction, 1899, January 1, to May, 1901, 2 years and 5 months.	4,029
Total approximate number of Chinese in the Philippine Islands according to the above bases of estimate	55,614

A recent census of the city of Manila claims a population of upward of 50,000 residing within the city limits, mostly in Binondo, the mercantile and shipping quarter. As the number of Chinese outside of Manila is not great, the approximation, 55,614, from statistics available is not excessive for the entire archipelago, January 1, 1902. This exotic race established itself in the country originally as invaders and later as merchants and traders. Its number, as shown, is large as compared with the other peoples of foreign blood. Their influence in local trade and industry is potential, and in some cases a monopoly.

Civilized races.—Of the 84 races and tribes 8 may be regarded as civilized, in numbers approximately as follows, also showing comparison as to numbers with the nearest population of a State of the United States:

Race.	State of the United States.	Approximate number of individuals.	Population.	Territory occupied.
Visayans.....	Indiana	2,601,600	2,516,462	Sq. m. 28,100
Tagálogs	Mississippi	1,663,900	1,551,270	36,350 15,380
Bicol.....	Washington	518,100	518,103	46,810 16,900
Ilocanos	Rhode Island	441,700	428,556	6,170 1,750
Pangasináns	Vermont	365,500	343,641	1,950 9,565
Pampangos	North Dakota	337,900	319,146	1,950 70,795
Moros	Utah	268,000	276,749	12,860 84,970
Cagayanes	Idaho	166,300	161,722	11,050 84,800

Nonchristian tribes.—The population, number of tribes, and distribution of this important element among the peoples of the Philippines is largely speculative. That nonchristian tribes exist in the provinces of Cagayán, North Ilocos, South Ilocos, Unión, Pangasinán, Tárlac, Nueva Écija, Zambales, Bataán, Pampanga, Bulacán, Tayabas, Ambos Camarines, Romblón, Cápiz, Antique, Iloílo, Western Negros, Eastern Negros, Sámar, Surigao, and Misamis is known. The predominance of Christianized natives in each of these provinces, however, is great. In Isabela and Abra the nonchristian tribes are numerous and important, while in Bontoc, Lepanto, Nueva Vizcaya, Benguet,

Príncipe, Infanta, Mindoro, the Calamianes Islands, Palawan, Balábac, the Sulu Archipelago, and the districts of Zamboanga, Cotabato, and Dávao, in Mindanao, they constitute the bulk of the population. The total nonchristian population is roughly estimated at 2,000,000.

Physical and political characteristics of the nonchristian tribes.—The Negritos are physical and mental weaklings. The Igorrotes of Bontoc display physical development and mental and moral qualities such as to lend weight to the opinion of the Filipino patriot, José Rizal, who said, "The future of the Philippine Islands is in the people of their mountains." The Moro tribes of S. Mindanao, the Sulu Archipelago, Balábac, and S. Palawan (Paragua) alone could afford any serious menace to public order or to the peace of any important portion of the archipelago. The friendliest relations have thus far been maintained with the Moros. The Moros of the Lake Lanao region, Mindanao, have long been reputed the fiercest and most uncompromising members of their tribe. The Spanish Government spent several years in an unavailing attempt to subdue them. Under American rule markets have been established for them at Iligan, on the N., and at Tucuran, on the S. coasts. They are now coming down to the sea on market days in constantly increasing numbers, indicating greater confidence. With the exception of Misamis, there are no Moros in any province where civil government has been established. The Tinguanes in Abra are possessed of a very considerable degree of civilization. The Moros have a fairly well-organized governmental system, but no other one of the numerous nonchristian peoples has a tribal government, while in not a few cases the family is the only recognized social unit, and even the family tie is loose. Certain of the nonchristian tribes have highly objectionable customs, as among the Moros. The large majority of these people are slaves, having sold themselves for debt, or are the children of those who so sold themselves, the obligations of parents being inherited by their offspring. However, a slave may secure his liberty by paying to his owner an amount equal to the price paid for him. In the majority of cases slaves are treated kindly and frequently allowed time and opportunity to earn money, so that it is possible for them to redeem themselves if they desire to do so. Slavery in the Philippines is not confined to the Moros. It is common among the wild Indonesian tribes in the interior of Mindanao and among the wild Malayans of N. Luzón. A practical result of the intercourse between Moros and Americans has already been seen in the proclamation of Dato Mandji, abolishing slavery among his people in the district of Zamboanga.

Languages, spoken and written.—The languages spoken in the Philippine Archipelago are: English, Spanish, and the vernacular dialects. English is the speech of the Americans, English and a small number of natives educated in some English-speaking country. The knowledge and use of the English language is rapidly spreading on the archipelago since the American occupation. Spanish is the language common to all educated people, the mass speaking only the native dialect peculiar to their respective localities. More than 9 per cent of the people speak Spanish, according to the best estimates. The principal Philippine dialects are: The Ibánag and Ilocano, of N. Luzón; the Pangasinán, Pampanga, and Tagálog, of central Luzón; the Bicol (Vícol) in S. Luzón; the Bisaya (Visaya), which is in use throughout the islands of the same name; the numerous dialects of Mindanao, the

Moro, Mabobo, Moutés, and Buguidnón; and finally the language of the Negritos. All the languages with the exception of the Negrito, which is conspicuously different from the rest, are not only similar, but also display an intimate relationship to the Malayan tongue from which they are supposed to be derived. In N. and E. Mindanao very similar dialects of Visayan are spoken. Not more than 3 or 4 per cent of this population in general speak Spanish. A much smaller per cent of children than of adults speak Spanish. In Zamboanga province nearly all understand Spanish and speak it after a fashion. In the other southern towns of Mindanao more or less Spanish, Tagálog, Visayan, and Moro is spoken. The various tribes around Dávao have their special dialects; likewise, the Monteses, Subanos, and hill tribes have theirs. The Cotabato and Lanao Moros have different dialects. In Paragua, Calamianes, and Cuyos islands there are various dialects, but the most common is Cuyono, which is a Visayan dialect, not much like the N. Mindanao speech. The Philippine peoples under this linguistic classification have attained various degrees of civilization, the Tagálog the highest, and with the exception of the Mohammedan-Moros, have been Christianized. The wild tribes as a rule are peaceful and harmless, although many fierce by nature have shown a decidedly warlike spirit. Head-hunting in N. Luzón and cannibalism is charged. Polygamy and slavery is also common. Human sacrifice exists in central Mindanao. The aggregate of the numbers in this abject condition is, however, small compared with the total of the dominant races.

Dialects.—The following is a list of the various dialects in which works have been published and in use in the archipelago, according to Retana in his valuable *Catálogo Abreviado de la Biblioteca Filipina*, Madrid, 1898, who mentions 27 idioms among the linguistic divisions of the inhabitants: Aeta (Negrito) Negros, in parts of Luzón and Panay; Batanes (Vitanes), Batanes group; Bicol (Vícol), SE. Luzón; Bilaan, Sarangani Island, Mindanao; Bisaya (Visaya), in the Visayan group; Bagobo, Mindanao and Apo Mountain; Calamian Calamianes; Cebuano, Cebú; Cuyono, Cuyos group; Egongot (Ilongote), E. central Luzón; Gadán, NE. Luzón; Harayo, Panay; Hiligayno, Panay; Ibánag, Luzón; Ilocano, NW. Luzón; Ilongote, E. Luzón; Isinay, central Luzón; Joloano, Joló (Sulu); Manobo, Mindanao; Moro-Maguindanao, Mindoro and Sulu; Negritos (Aeta) Negros, Luzón, Panay; Panayano, Panay; Pampango, Pampanga, W. central Luzón; Pangasinán, Pangasinán; Sámal, Basilan, Mindanao; Tagacaolo, Mindanao; Tagálog, central Luzón and Manila; Tagbanúa, Palawan; Tino (Zambales), Zambales; Tiruray, Mindanao, Luzón; Vícol (Bicol), SE. Luzón; Vitanes (Batanes), Batanes group; Visaya (Bisaya), Visayan group and N. Mindanao; Zambales (Tino), W. Luzón.

Alphabet.—The primitive Philippine alphabets were introduced by the Indians, the second set of colonists who came to the islands. These alphabets resemble somewhat the Arabic writing, and do not differ in the phonetic value of the signs, but only in their number and in the way in which they are formed. As to the direction in which the writing is formed, some authors are of opinion that the natives wrote from below upward in columns or vertical lines, beginning at the left and ending at the right. Other writers claim that the natives wrote horizontally from left to right, although it seems that this was the case after some years of Spanish domination. The old Philippine alphabets were promptly abandoned and the Spanish adopted instead.

As early as 1745 a writer stated "it is rare to find an Indian who knows how to read them (Indian alphabets), and extremely rare that any one knows how to read them. It may be said that they are not even remembered." The Moros in Mindanao and Sulu still retain their primitive alphabet in writing, which also shows not only distinct traces of Arabic origin introduced by the early Arabic teachers of the doctrines of Islam in the southern islands, but in the more finished styles is intelligible among the Arabs of Arabia.

RELIGION.

Except the Moros (Moslems) and wild tribes (pagans) the people of the islands are Roman Catholic. As shown by the church registry, in 1898 6,559,998 souls were distributed among 746 regular parishes, 105 mission parishes, 116 missions—total, 967. Of the regular parishes all but 150 were administered by Spanish monks of the Dominican, Augustinian, or Franciscan orders, natives not being admitted to those orders. The Recolletos or the unshod are an offshoot of the original order of St. Augustine. By the revolutions of 1896 and 1898 members of the orders were obliged to take refuge in Manila; of the number 40 were killed and 403 imprisoned until relieved by the American troops. Of 1,124 in the islands in 1896 but 472 remain. There were at that time missions and missionaries—42 Jesuits, 16 Capuchins, 6 Benedictines, and 150 native secular clergymen with small parishes. There were many native priests assisting friar curates.

The establishment of religious freedom is guaranteed under the Treaty of Peace, December 10, 1898, in terms, "the inhabitants of the territories over which Spain relinquishes or cedes her sovereignty shall be secured in the free exercise of their religion." [Article X].

DEPENDENT ISLANDS.

The Philippine archipelago comprises 12 principal islands and 3 groups, adjacent to which are 1,583 dependent islands. The names and areas of these islands may be found with the description of the main island or province to which they are considered dependent.

List of main islands or groups in the order of area of mainland with the number and area of dependent islands.

Main island or group.	Dependent islands.	
	Number.	Sq. m.
Mindanao.....	258	1,162
Luzón.....	311	1,160
Sámar.....	148	290
Negros	17	15
Panay.....	116	351
Palawan.....	135	458
Mindoro.....	26	58
Leyte.....	40	342
Cebú	29	114
Bohol	59	214
Masbate.....	46	85
Marinduque	13	14
Sulu Archipelago.....	188	509
Calamianes (group).....	98	677
Cuyos (group)	47	63
 Total.....	1,531	5,512
Romblón.....	32	461
Add Burias and Ticao	20	19

Number and area of dependent islands.

100 to 1,000 sq. m.	18
50 to 100 sq. m.	11
25 to 50 sq. m.	18
10 to 25 sq. m.	33
5 to 10 sq. m.	41
Less than 5 sq. m.	1,462
Total.	1,583

VEGETABLE PRODUCTS.

The staples of the archipelago in their order of importance are hemp (abaca), tobacco, sugar, copra, coffee, and rice. The other products are cocoanuts, chocolate, corn, wheat, indigo, benne seed (sesame), peanuts, and vegetables of many varieties. In some of the islands in the higher altitudes all the cereals and vegetables of the United States thrive. In Mindanao and Palawan to the general list may be added cinnamon, cloves, nutmegs, mace, and the other valuable products of the spice islands of the East. The betel and betel pepper so extensively used among Asiatic peoples grow abundantly in many parts. The tea plant also thrives.

The soils of the islands of the archipelago consist of the decomposition products of the prevailing rocks—porphyritic, syemetic, hornblende, and other varieties of granite, crystalline schists generally, siliceous and argillaceous limestones, trachytes, basalts, andesites, etc., and the alluviums of the river levels. They possess great fertility and, liberally watered, yield luxuriantly all the indigenous and any of the attempted exotic vegetable products of tropical and subtropical latitudes. The wonderful productiveness of the soil and diversity of climate make the Philippine Islands one of the richest agricultural regions of the world. Improved methods of cultivation and machinery will add to this branch of wealth.

Economic classification.—The following Philippine commercial and industrial products of agriculture are the staples of home consumption, manufacture, and export, arranged in groups:

Gramineous plants or grasses.—The most important are rice, corn, bamboo, zacate, cogon, and sorghum, or batad.

PALAY, or RICE (*Oriza sativa*, L.), is the chief food of all Eastern peoples, and in the Philippines is the principal crop upon which the sustenance of the indigenous population and of the numerous Chinese inhabitants depends. Rice boiled in water without salt, called by Spaniards "morisqueta" and by the Tagalos "canin," is looked upon by the natives the same as Americans and Europeans look upon bread, so that a scarcity of rice always causes great hardship to the people of the islands. More than 120 varieties of rice are known, distinguished by the size, color, and flavor of their grains, those of greatest importance being Minis, greatly esteemed on account of its white, transparent grain and excellent flavor; Binuhangin, Dumali, Bontocabayo, and others. A variety called Malagquit has an unusual glutinous quality and is much used in the manufacture of cakes and pastry. The rice is cultivated either on lowlands (irrigated) or on uplands (dry). For the cultivation of lowland rice the ground is divided into small rectangular plots, having a slight inclination and surrounded with little dikes, called pilapil, which serve to retain the water. While these beds are sprouting the flooded lands are worked, the carabao (water buffalo) being used, into a soft mud. When the rice grows to a height of 20 cm. (1 cm. = 0.3937 U. S. in.) it is pulled from the beds, formed into bundles, and taken to the place where it is to be transplanted. Regular lines of holes are made in the softened earth, in each of which is placed a bunch of 6 or 7 stalks. When harvest time comes, in August or a little later, the plants are taken out one by one. The palay is now placed in heaps, called "mandalas." The grain is separated from the straw by thrashing, or by use of wind whenever possible, and is finally separated from the husk by pounding two or three times in a wooden mortar, called a "lusong,"

or by making use of a sort of handmill, called "guilingan." On the highlands it is necessary to go over the ground two or three times and break up all clods. The seed is sown by hand after the first heavy rains, and without other care the crop is finally collected. The ordinary price of rice in the husk, called *palay*, is 13 to 14 reales fuertes per cavan of 75 liters (about 60 to 65 cents per bushel), while that of shelled rice is from 20 to 22 reales fuertes per cavan (about 90 cents to \$1 per bushel). The rice has as its enemies the locust, which totally destroys the crops; an insect which attacks the young and tender grain, sucking the juice and leaving it completely empty; the *maya*, a small bird abundant in the lowlands, and the monkey in certain regions. Formerly the rice was a great article of export, but to-day a large supply comes from Cochin China, the annual production, about 17,000,000 cavans (36,000,000 bushels), being far below the actual food requirements of the population. The unhulled rice, or *palay*, is used as food for horses and poultry.

CORN, or MAIZE (*Zea mays*, L.) is of American origin, whence it was carried by the Spaniards. Its cultivation has become quite general throughout the archipelago, especially in those regions where the soil is not altogether suitable for the cultivation of rice, as in Cagayán and Isabela. In some places it has taken the place of *Morisqueta*, being reduced to a coarse granular flour by means of the *guilingan*, and then boiled in water without salt. It is also used as food for cattle and fowls, as are the leaves and young stalks, which make excellent fodder. The quantity of maize annually produced may be set down at about 2,000,000 cavans (about 4,250,000 bushels). It is sold at from 4 to 5 reales fuertes per cavan (about 18 to 23 cents per bushel) of shelled grain.

BAMBOO of various species of the genus *Bambusa*, the most useful being the Cauyang *Totoó*, which at times reaches a diameter of more than 20 centimeters (0.3937 in.) and a height of more than 12 meters (1 meter = 39.37 U. S. in.). It is employed principally in the construction of native houses, which are often made wholly of bamboo, except for the rattan used to tie it together, and the *cogon* or *nipa* used as thatch. It is also used in the construction of boats, rafts, bridges, aqueducts, scaffolding, vessels of all kinds, hats, baskets, furniture, fishing apparatus, arms, rope, harnesses for buffaloes, etc. The young and tender shoots of the bamboo, called "labong," make a very acceptable article of food, eaten in the form of salads, sauces, and other dishes; and in years of long-continued drought they even take the place of rice to a considerable extent.

ZACATE (grass) includes several species used as forage for live stock, especially horses, the principal variety belonging to the genus *Leersia*. The cultivation is conducted with much care, as the returns near important towns are large. There are several crops a year.

COGON (*Saccharum koenigii*); a rapidly growing plant reaching 3 meters (about 10 ft.) in height, and forms a tangled mass only penetrable by fire or knife. The areas are burned over during the dry season, the young shoots being cut for cattle fodder when 18 in. high. Where *nipa* does not grow *cogon* is used for thatching.

SORGHUM, or BATAD (*Holcus saccharatus*, Bl.); a fodder plant in the Philippines cultivated in the United States for sugar or alcohol.

A number of varieties of other grass and fodder plants form the pastures of the mountains.

Textile plants.—The principal textile plants which furnish fiber for the manufacture of cloth, cordage, etc., are *abacá* or hemp, cotton, pineapple, *cabo negro*, rattan or *bejuco*, *ramie*, *agava*, and *pandán*.

ABACÁ (*Musa textilis*, L.) is principally cultivated in the provinces of Ambos Camarines, Albay, Sorsogón, and Catanduanes, in the islands of Sámar and Leyte, and on a smaller scale in Cebú, Mindoro, Marinduque, southern part of Negros, and the north of Mindanao. For its cultivation a moist climate is needed. The soil should be open and moist but not swampy. New plants are grown from shoots or suckers, called by the natives *saga*, which grow about the base of the plant. Generally at the end of 3 years the plant reaches its full development, the most suitable time for cutting being when the fruit begins to show, as the fiber is then in best condition. The trunk, which looks like that of the banana, is cut down with a sharp knife. The lower part of the trunk and the leaves are then cut off, and the external layers of the plant or those containing the fiber are then removed and carried to the working house, where the fiber is extracted. The finest quality is called *lupis* or *quilot*, and is of pearly luster. Other grades are distinguished by their color and consistency. The plant has as enemies two insects, called "tamiloc" and "amarog," which pass through the metamorphosis in the trunk of the plant, ruining it. The *abacá* (hemp) constitutes one of the chief articles of exportation, perhaps the only

one which does not admit of any competition, the average yearly shipments amounting to nearly 100,000 long tons. It is exported principally to the United States and England, small quantities going to Spain, Australia, Singapore, and China. First grade between 1885-1894 ranged per kilogram (2,204 lbs.) between \$17.12 and \$6. The inferior grades run 25 to 40 per cent lower in the Manila market. The prices in the provinces are less. The production began to assume large proportions in 1855. At Manila are a few factories in which the abacá is made into cordage and rope. It is also used as a component of certain kinds of native cloth. Under existing conditions abacá plantations, with careful management, yield an annual return of 30 per cent on the investment.

COTTON (*Gossypium herbaceum*, L.) is cultivated in the provinces of North and South Ilocos, Unión, Pangasinán, and Abra. The soil should be open, strong, and easy to work, deeply plowed and carefully prepared, and planted when there is no danger of heavy rains, in furrows about 3 ft. apart, and an equal distance apart in the furrows. When the seed is ripe it is collected and the cotton passed through a series of manipulations, rendering it suitable for the manufacture of cloth. Other varieties grow wild, and are used for making pillows and mattresses. Cotton has recently lost much of its former importance because of the competition of British fabrics.

PINEAPPLE (*Bromelia ananas*, L.), of American origin, is cultivated for its fruit and the fiber, which is obtained from its leaves. In the Philippines, however, it is of more importance as a textile plant. It grows on almost any ground, but gives best results in open, strong soil. In order to obtain the fiber the fruit is first cut so that the leaves may become as long and broad as possible. When the leaves are well developed they are torn off and scraped with a sharp instrument to separate the fleshy part and leave the fiber, which is washed, dried in the sun, combed out, classed in four grades, according to its fineness, and finally employed in the manufacture of fabrics in the same way as Manila hemp. The finer filaments are woven by rude looms into a most delicate cloth, which is used for making handkerchiefs, waists, and other garments.

CABO, NEGRO (*Arenga scharifera* Labill), called "cauong" by the natives, belongs to the family of palms. Along the edge of the stem of the leaf are long, black, and very strong fibers, which are useful for the manufacture of ropes and cordage, very durable and resisting moisture and even salt water. It is used also in making walls or partitions.

RATTAN or BEJUCO, of the genus *Calamus*, of several species is called by the natives dilan, yantoc, talola-curag, and palasan. These spiny, climbing plants, which sometimes attain a length of 200 meters (666 ft.), furnish to the natives a material of most extended application. The yantoc takes the place of nails, all the framework of the houses built of bamboo and nipa, and many of those built of wood, being held together by strongly laced bands of rattan. These rattans are also employed in the rigging of all the smaller boats, and in the making of rafts, hats, sacks and bags, chairs, and other articles of furniture. From the stems of the palasan are made canes of world-wide reputation.

RAMIE (*Boehmeria nivea*), a nettle resembling that of Spain, but without needles. The fiber forms on the outer bark of the plant. It attains a height of from 3 to 7 feet. The celebrated Canton linen is made from it, the fiber rivaling the flax. The cultivation is limited, on account of the special machinery required to extract the fiber. It is found only in the Batanes group and N. Luzón. In the *urtica arborescens*, or Dalonot, the same fiber also exists.

AGAVE (*Agave Americana* L.), called "Magui" or "Maguey" in Tagálog, originally from America. Its fleshy, sharp leaves, bordered with a row of spines, furnish the fiber from which the delicate Nipí cloth is made. It is cultivated on a small scale in certain localities in the archipelago, and exported in bulk to England, China, Japan, and Egypt.

PANDÁN (*Pandanus spiralis* Bl.), the leaves of which are used for the manufacture of hats and sacks, an important industry in Luebán town and Tayabas province. The large leaves of the buri palm (*Corypha umbraculifera* L.) and the split stems of the leaves of the nito (*Lygodium semihastatus* Del) are utilized for the same purposes.

Oil-producing plants.—The most important in their order are—

COCOANUT (*Cocos nucifera* L.), of the family of palms from India, and one of the most useful products of the Archipelago on account of its many industrial, domestic, and medicinal uses. The natives call it niog and the Spaniards coco. When the fruit is to be used for the manufacture of oil, a disk of the outer husk, called by the natives bonot, is first cut from either end. The rest of the husk is removed, the inner covering, or shell, divided into two parts, and the adherent meat separated from the shells. The meat is then deposited in a large wooden tub which has a hole in the

bottom for the escape of the oil, which flows from the mass simply by exposure to the sun. This primitive method being slow and imperfect, a better and more general one is by means of fire. The cocoanut is placed in suitable receptacles or in specially prepared ovens and boiled, or in a large kettle having a slow fire underneath. It is usual to express the oil from the meat, as a much larger quantity is obtained. The natives use this oil as a condiment, and while still fresh as a purgative. It is greatly used for lighting purposes and in the manufacture of soaps. Both in the Philippines and Europe it is used in the manufacture of perfumery. The copra, the dried kernel of the cocoanut, constitutes one of the chief articles of export. The macapunó, a variety of cocoanut, with its soft meat, is made into preserves and sweetmeats, and the buco, another variety, with its sweet meat and water, makes a delicious refreshing drink.

Among the many other uses of the cocoanut may be mentioned: By tapping the central bud that crowns the tree a kind of wine, called "tuba," is produced, which, when allowed to ferment, produces vinegar, and when distilled a kind of brandy. From the husk the natives make ropes and cords and a material for calking their boats. From the woody shell they carve spoons, cups, beads for rosaries, and many other articles. The leaves they use to cover the roofs of their houses. The veins and smaller ribs of the leaves are used to make brooms, the midribs serve as fuel, and the ashes are utilized in making soap. The trunk of the palm is made to serve as a pillar to support the houses. Oil barrels, tuba casks, and water pipes are fashioned from hollow sections of the trunk. The cocoanut fruit is also a very important item of export. Manila ships annually about 150,000 pesos worth of cocoanuts to China and British India, and about 30,000 pesos worth of cocoanut oil to China.

CASTOR OIL, RICINO, RICINUS (*Communis L.*), a native of India, there known as the Higuera infernal, or infernal fig, and to the Tagálogos as tangantángan. The seed of the Philippine variety produce about 40 per cent of oil for medicinal (purgative) or lighting purposes. A tree (*Jatropha curcas*), belonging to the same family, produces a reddish oil illuminant, known to the Tagálogos as tuba, in Iloilo as casla, and in Ilocos as "tavatava."

LUMBANG (*Alcurites tritoba Bl.*) is cultivated for the oil extracted from its seeds, which is of good quality—used for lighting, calking ships, and painting. The refuse after the extraction of the oil is generally employed as a fertilizer for the betel palms. Lumbang oil is exported to China.

BENNE SEED, SESAMA, OR AJONJOLI (*Sesamum orientale L.*), one of the most anciently known and widely cultivated products of the Orient, and especially successful in growth in the Philippine Islands. The seeds often produce 53 per cent of fixed oil of sweet taste similar to the product of the olive, with which it is largely adulterated, and holds its purity longer. In Egypt, China, Japan, and other oriental countries it is used in place of lard or olive oil for cooking. It makes an excellent soap, cosmetic, and medicinal emulsion, for which purposes also it is an important article of export. The residuum after the extraction of the oil makes a fattening food for cattle and a fertilizer. After the sowing of the seed by hand the plants require no care except thinning and harvesting, to save loss of the seed.

PEANUT, MANI, OR CACAHUAT (*Arachis hypogaea L.*), a native of lower Guinea, thence taken to Brazil, now a favorite product of the three Americas, Europe, Asia, and Oceanica. In the Philippines, where the climate and soil are admirably adapted to its growth, the product is at present chiefly used as forage for cattle. Its seed produces half its weight in fixed oil, which is peculiarly adapted to hot climates, as it is slow in turning rancid, even exceeding the benne seed in that respect. The oil is yellowish, without odor, sweet, and fluid, and valuable in native toilet, lubricating, and soap preparations. The residuum, mixed with an equal weight of flour, makes excellent bread, and mixed with cacao is used in the manufacture of chocolate.

Dye and starch plants.—In this economic subdivision of plant life the Philippine Islands are rich, in the order of their importance, as follows:

ASIL or INDIGO (*Indigofera tinctoria L.*); the juice from the leaves and young stalks of the Philippine variety furnishes blue dyestuff freely, which is much used in the industries, and particularly in household economy. The principal provinces in which it is produced are Bataán, Batangas, Bulacán, Laguna, Nueva Écija, Pangasinán, Pampanga, Tayabas, Zambales, Ilocos Norte and Sur Cápiz, and Bohol, where the most suitable conditions for its cultivation are found in the light, deep soil, as the roots ramify but little, the central root penetrating to considerable depth. The coloring matter is extracted principally from the leaves, which are collected as soon as they are completely formed and before the fruit has taken shape. The product is not only

extensively used in the islands for dyeing thread and cloth of cotton, silk, and wool, and for coloring wood, paper, etc., but is regularly exported to China, Japan, and Singapore. The Philippine indigo is second to none, possibly excepting that from Bengal, the most highly prized. The Coromandel or Madras product is not its equal.

SAFFLOWER OR ALAZOR (*Carthamus tinctorius* L.), a variety of saffron called biri in the Philippines, and used in the adulteration of that article. Its stamens produce 2 yellow colors soluble in water, and a third, red, soluble in alkalies and of greater value.

BALANTI (*Homalanthus populifolius* R. Greh.) and CUMALON (*Diospyros cumaloni* A. D. C.), 2 trees, the bark of which, dried and reduced to powder, furnishes a black coloring matter used by the natives.

SYLICICAN (*Morinda umbellata* L. and others), a species of wild bancuro, furnish roots from which the natives extract a red coloring matter. The bagolibás wood yields a dye of a tawny color. The prepared bark of the dayagao makes a mordant which imparts a fine luster and stability to cloth dyed black, yellow, or red, and belolo, dugna, and hagur are used by fishermen for dyeing and preserving their nets; color, dark brown.

ANANAPLES (*Albizia procera* Benth.), used in dyeing hides to be manufactured into whips, sole leather, and saddles.

AGUISIP (*Malestroma polyanthum* Blum.) and BANCRO (Morinda tintoria Roxb.); the bark of the former and the root of the latter yield bright-red coloring matter used in a difficult and delicate process of dyeing hemp cloth called "pinayusas."

SIBUCAO RALTAR (*Casuarina supan* L.), the trunk of which produces a red coloring matter similar to campeachy or logwood, employed in dyeing cotton or wood. It is very abundant in the forests, and some varieties are found which produce a color more highly valued than that of the Brazil woods. It grows naturally from the seeds which fall from the pod. Considerable amount of the dye is produced in the Philippines, and is an important article of export to China and England, being often used in place of cochineal. The Chinese employ it in dyeing silks, damasks, and other fabrics.

BACAUAN (*Rhizophora tinctoria* L.), the chief tree of the impenetrable jungles of the mangrove swamps along the coast and near the mouths of rivers, the resort of mosquitoes, aquatic birds, and amphibious animals. From the bark a reddish coloring matter is extracted. The wood is much used as firewood.

ARROWROOT, a herbaceous plant, 3½ ft. in height, having lanceolate leaves about 15 cm. (1= .3937 in.) in length. A long, horizontal, fleshy, white tuber, contains a considerable quantity of fecula. It is cultivated with success in all loose, fairly damp soils, being planted from buds placed separately in holes about 60 cm. apart, as the plant is very leafy. The crop can be collected in 6 or 7 months without further care.

Buri (*Corypha umbraculifera*, L.), celebrated in all the archipelago, giving name to the island of Burias, where it is found in abundance, growing spontaneously. It belongs to the palm family, reaches a considerable height, and is very beautiful, the trunk being adorned with a fan-like bunch of leaves. To obtain the starch, the tree is cut down at the root and all of the interior part of the trunk is taken out and deposited while moist in casks or troughs, while some of the bitter substances are drained from it; it is now pounded with sticks or mallets, when the starch separates in the form of very fine grains; it is then collected and dried and made into flour, which furnishes an excellent, tasteful, and good food called sago, taking the place of rice as a food stuff in Burias, Masbate, and Bolol. Also see Buri alcoholic plants.

CASSAVA, GCCC, or CAMÓTING CÁHOY (*Jatropha manihot*, L.), a native plant of tropical countries of the family *Euphorbiaceæ* notable for its roots, which contain an abundance of starchy fecula called "tapioca," whose food qualities are so well known. In order to utilize the root as food it is necessary to grate, wash, and press it considerably so as to express the juice. The material remaining is the flour or tapioca, which is white or yellowish white in color, sweetish in taste, and somewhat insipid. It is much valued in medicine on account of its digestibility, and is much used as food for infants and sick people.

BAGSANG (*Metroxylon rumphii*, Mart.), a palm, very common in the Visayan Islands and very useful to the inhabitants, especially if there is lack of rice or other food stuffs. From the heart of the tree a sort of flour is obtained which is of great nutritive value. It is frequently made into cakes or fritters, and eaten with cocoanut milk.

LUMBIA, or LUMBAY (*Metroxylon silvestre*, Mart.), a palm very similar to the preceding, but taller and larger and having wider and stronger leaves. A species of flour is obtained from the heart of this palm, which serves as a food stuff to the poorer classes, especially during times of famine.

CÁONG (*Caryota ornata*, Bl.), a palm from whose trunk a species of sago is obtained.

PAGAHAN, or BAUGA (*Caryota urens*, L.), a palm containing a poisonous substance, but which furnishes a starch or kind of sago, of excellent quality and in good quantity.

Saccharine and alcoholic plants.—Of the saccharine plants, the sugar cane is the most valuable, and of the alcoholic plants, the nipa or sasa, in order of importance as follows:

SUGAR CANE (*Saccharum officinarum*, L.), one of the agricultural products of greatest importance. The sugar-producing provinces are Pampanga and Negros, and on a smaller scale Laguna, Bataán, Batangas, Iloílo, Cebú, Cavite, Pangasinán, Cápiz, Antique, and Mindanao. Not less than 20 varieties are known, the most excellent and cultivated being the Batavian, distinguished from the common variety by the violet color of its stalks and the larger number of joints and its greater size; the otaheite, taller and larger than the preceding, with a lemon-yellow stalk, and the creole, with a slender stalk and of yellowish white color. For a successful cultivation of this plant the soil should be deep and of medium consistency, and preferably clayey loam or silicious, prepared by plowing three or four times, and finally by hoeing, leaving it perfectly soft and smooth. In the Philippines the cultivation of sugar cane is generally carried on with little care and intelligence. What is produced, however, finds a good and extensive market, thus constituting one of the chief articles of export. The principal markets are the United States, the United Kingdom, China, Japan, and Spain. Of the total amount of sugar produced in the Philippines, only a small part is consumed in the islands. During the last few years the shipments to foreign markets have averaged over 3,500,000 piculs (about 500,000,000 lbs.) a year, exceeding in importance all other exports except Manila hemp.

NIPA, or SASA (*Nipa littoralis*, Bl.), one of the most useful palms found in the Philippines. As a thatch it covers a great majority of the houses and other buildings in the islands; it forms the walls and partitions of the native houses. The sap, called tuba, is manufactured into wine, consumed to great extent by the natives. The plant grows only in muddy regions, or those which are liable to be overflowed, or the mouths of rivers which communicate with the sea. In order to obtain the tuba an incision is made in the peduncle immediately below the point of insertion of the fruit. From the incision flows a liquid which is collected in bamboo tubes or joints called bombones, which are hung conveniently on the plant. The tuba is afterwards distilled and then concentrated in stills, and although the loss of liquid is great there remains a considerable amount. This tuba, when much fermented, may be used as vinegar.

SORGHUM (*Sorghum saccharatum*, Rers.), one of the family of grasses whose stalk yields as high as 17 per cent of prismatic sugar. At present in the Philippines it is used for forage. It is cultivated in sections where the cane does not flourish and has economic value for sugar and alcohol.

COCOANUT; the tuba from the tree is cut before the flower is formed. A bamboo joint or bambone is attached for the collection of the liquid. A little of the powdered bark of the tongog (*Rizophora longissima*, Bl.) is placed in each bamboo to give strength and reddish color to the wine, which is collected daily by men in large bamboo joints. For convenience of the collectors bamboo walks are extended from tree to tree.

BURÍ (*Corypha umbraculifera*, L.) produces the wine called "tuba." Also see Burí dye and starch plants.

CAMONA (*Caryota onusta*, Bl.) and **PUGAHAN** (*Caryota urens*, L.) furnish a sweet liquor or tuba very popular among the natives.

MAIZE, or INDIAN CORN (*Zea mays*, L.); the starch furnishes the pangasi of the Visayan Islands. Several families unite in its manufacture, usually resulting in considerable conviviality.

Aromatic plants.—The best known and most cultivated are tobacco, coffee, chocolate or cacao, nutmeg and mace, betel or itmo, cinnamon, and pepper.

TOBACCO (*Nicotiana tabacum*, L.), in the Philippines is of great importance, as it constitutes a most prominent article for export and home consumption. Tobacco coming from the provinces of Isabela and Cagayán is considered the best. That from the Visayan Islands is less fine, more unequal in color, but of greater strength. That from Nueva Ecija is fine, but somewhat bitter and yellow. That from Unión, Ilocos, and the Igorrotes is of heavy body, broken, and frequently has but little combustibility. Although tobacco grows in almost all climates the product is more abundant and better in hot climates, the heat determining the aroma. The lands most suitable for its cultivation are of medium consistency and depth, cooled during the summer time, or sandy or silicious subsoil covered with loam, along river banks periodically overflowed, lands called in Spanish "vegas." The preparation of the soil consists of three plowings at intervals of several days, and the completion of the process by grading and leveling and the removal of all injurious weeds. The gathering of the leaves

begins when they turn yellowish, wrinkle somewhat, droop, and show more or less of a sticky juice. They are then classified according to size and quality, being left on the ground until dried. The tobacco is then tied in bundles, suspended by cords in the tobacco storehouses, protected from the sun, but exposed to ventilation on all sides by windows and doors, opened or closed according to circumstances. Tobacco, either manufactured or in leaf, constitutes a most prominent article of export. Over 100,000,000 cigars are exported annually from Manila, and sent chiefly to China and Japan, the East Indies, the United Kingdom, Spain, and Australasia. The shipments of leaf tobacco average about 200,000 quintals (20,400,000 lbs.), their principal market being Spain.

COFFEE (*Coffea arabica*, L.), produced in Batangas, Laguna, Tayabas, and Cavite, in Luzón, and Cotabato and Misamis, in Mindanao. It grows stronger and more luxuriantly in localities having both heat and moisture. The soil most suitable for it is light and moist, but not marshy, or reddish, somewhat sandy, or black soils without too much clay. The gathering is accomplished either by shaking, if the plant is high, or by hand picking if low. After gathering, the pericarpium is removed, and the berries placed in the sun. When thoroughly dried the husk is removed. The other operations to prepare coffee for the market are winnowing, to separate the inner husk and all dirt from the berry, and sorting into first and second grades. The production of coffee in the Philippines has fallen off on account of the destruction of the plants by an insect of the genus *Xylotrechus* and by a fungus of the genus *Peronospora*. The product compares with Mocha and Java or Martinique. The annual coffee crop of the Philippines formerly amounted to about 100,000 piculs (14,000,000 lbs.), valued at 2,000,000 pesos.

CHOCOLATE (*Theobroma cacao*, L.), a tree distinguished for its showy appearance and highly prized for its fruit. The seeds roasted give out a delightful aroma, and well ground and mixed with sugar and a little cinnamon form a nutritive, healthful, and agreeable food. They are brown, and somewhat larger than an almond. It is cultivated in various provinces of Luzón and Visayas, but flourishes best in S. Mindanao, especially in the district of Dávao, where it is produced in large quantities and of excellent quality. The plant demands a warm climate and a considerable amount of moisture. The soil should be deep and light, black and reddish, somewhat sandy, with an abundant top soil of muck. The total quantity of cacao produced amounts to 2,000 piculs (280,000 lbs.), which is consumed at home in the manufacture of chocolate.

NUTMEG and MACE (*Myristica fragrans* Houtt), an article of commerce indigenous to Cebú and Laguna, Luzón, and cultivated will grow in all parts of the island. The trunk is covered with a thin bark, blackish and slightly mottled from which, when incised, flows a reddish juice which coagulates on contact with the air. The fruit is about the size of a small pea, having a thick husk and a hard pit about as large as a small peach, inside of which is the nutmeg. This is surrounded by an aromatic rind or skin called mace. The beautiful flower is aromatic. From it is made a preserve noted for its fragrant odor. The tree attains a height of 33 to 44 in. and begins to produce in 5 or 6 years. The crop is light at first.

BETEL or ITMÓ (*Piper betel*, L.), a climbing plant cultivated very extensively in the Philippines. Near Manila, the town of Pásay, in Rizal, is famous for the excellence of its betel. The leaves are used in making the preparation known as "buyo." This preparation is composed of one of the leaves of this plant, a piece of lime the size of a pea, and a piece of bonga or betel nut.

CINNAMON (*Cinnamomum burmanni* Blume.), a tree found in many of the islands, especially in Mindanao. In Zamboanga, Caraga, and the mountains of Misamis the varieties of cinnamon have stronger taste and fragrance than of Ceylon. The cinnamon comes from the bark of the branches which have been stripped of their epidermis, and is an aromatic substance, having many uses.

PEPPER (*Piper nigrum*, L.), a climbing plant, clinging to adjacent trees when cultivated, and bearing a berry; when dried, making black or white pepper. In the northern part of the islands the long pepper of British India can be cultivated.

Medicinal plants.—The Philippine flora embraces a large variety of plants of medicinal value among them:

FOR DISEASES OF THE HEAD.

BALOCANAD (*Aleurites trisperma* Bl.); the oil of the seeds, when rubbed into the scalp, kills all vermin.

CASTOR OIL (*Ricinus communis* L.) or TĀNGAN TĀNGAN; very abundant; used principally to alleviate headaches, being applied on leaves to the forehead, causing

sweating and relief; mixed with the oil of sesame, it is applied to the stomach with good effect, and to the feet for dropsey.

DACDAC; when the head is bathed with an infusion from the bark, headache disappears, as does the lethargy from which the patient suffers.

FOR THE DIGESTIVE APPARATUS.

BACAO; its bark, pulverized and mixed with water, furnishes a remedy for all kinds of intestinal parasites.

BAHAY (*Adamanthera pavonina* L.); its bean-like fruits or its root placed in cavities of teeth greatly relieve pain.

CABCABAN (*Polypodium guercinum* L.) and the BALSAMINA or APALIA (*Momordica balsamina* L.) produce purgatives.

MAISIPASE (*Clausena* sp. Bum.); its leaves give an oil, useful for diseases of the stomach.

PAETAN (*Lunasia parrifolia* Muell.); an antidote for fish poison; cures stomach disease, and is a remedy for ulcerating sores.

SALITBUT or PAÑDACAQUI (*Taberna montana*); an infusion of the root of this tree given as a drink improves the bowels and stomach in cases of distension, cold, and indigestion; is an excellent blood medicine, and is used with great benefit by women after parturition.

SAMBONG (*Blumea balsamifera* D. C.); a sage having medicinal properties, and as an infusion is much used in diseases of the stomach.

TAGUYPASIN or ALOM; the leaves are of value in any chronic stomach disease due to inflammation, overloading, or cold, and also in reducing inflammation of the limbs, if used as an unguent.

TAXGULON (*Quisqualis indiana* L.); its seed, called "piñoncillo," is an excellent vermifuge; may be eaten raw.

FOR THE CIRCULATORY APPARATUS.

CUMALIBUIB, or HIMANGCORAN, or OTOB-OTOB; its root grated into an infusion cleans and cures ulcers or wounds; the pounded leaves of a climbing plant in the Visayan Islands called "balan̄go" applied to the wound has the same effect.

SIBUCAO or BRAZIL WOOD (*Casuarina sappan* L.); an infusion of its juice causes the absorption of coagulated blood.

FOR AFFECTIONS OF THE SENSES.

HAULIG; a solution of its bark and leaves in water used as a wash is useful for treating and preserving the eyes.

TUCÚCAY; used for a remedy for deafness.

FOR THE SKIN.

ALOCLOC; its leaves crushed and applied to cutaneous tumors quickly bring them to a head and cause the removal of their contents.

BAGO-BAGO; of the genus *Garcinia*, family *Guttiferae*; powdered and placed over the fire, and applied hot to patient suffering from inflammation, quiets the nerves and relieves pain in the joints.

BUSALAS; of medicinal virtue in cases of abscesses.

CULASI (*Lumnitzera coccinea* Wight and Arn.); its resin cures scab and itch.

LAGNOTO (*Diospyros multiflora* Bl.); yields a resin which serves as a caustic.

LORANTACE; its wood will cause the pustules of smallpox to appear when they are slow in presenting themselves.

MAMPOL, of the genus *Loranthus* of the family. *Lorantaceæ* has the same effect.

PANHAUTOLON (*Scævola koenigii* Vahl.); an infusion made from its leaves and bark used as a lotion cures specific trouble and relieves the pain in the bones which accompanies this disease.

PILA; a root of the trailing plant "mangadlao" is used in wounds.

SÁLAC; the root cures spots on the skin.

SARSAPARILLA, of the genus *Smilax aspera*, called by the natives "banag," common along the rivers and coasts, from an infusion of its root makes a good remedy for those who suffer from specific ulcers.

IN PARTURITION.

ALACTAYO or TICALA; its leaves applied to the abdomen of a pregnant woman will bring on parturition.

TARAJE (*Casuarina equisetifolia* Forst.); an infusion of its leaves cures chlorosis.

FOR ANTIDOTES.

BAGOSABAC; the bark of its root cures the bite of a poisonous animal or snake.

MANUNGAL (*Stmadera indica* Gaert.); a solution by boiling of this plant is one of the best antidotes for poisonous substances eaten.

MARBAK (*Cayratia*); the oil and infusion cures stomach disorders.

PALAGNIGON; an infusion of the bark is an antidote and febrifuge; also of the calasusi as a purgative or emetic.

FOR FEBRIFUGES.

DITA (*Alstonia scholaris* D. C.); when treated with acidulated water produces an alkaloid, ditain, which is employed in place of quinine for all kinds of fevers.

TAMBALAGUISA OR MANTALA (*Sophora tomentosa* L.); its fruit is a febrifuge having a very bitter taste; its seeds are used for certain malarial fevers.

FOR DIURETICS.

NANGUIN and LANGUINGUI; its leaves applied under the arms as a plaster, after being heated before the fire, cure muscular and nervous spasms.

PALO-SANTO, or GUTOS-GUTOS, or HANNADAO, a leguminous which is an excellent remedy for spasms and chills; an infusion of this plant expels injurious humors from the body, does away with obstructions, regulates the stomach, cures the specific trouble, and serves as a sudorific.

POLOTAN or ULINGON; an infusion of its leaves and the juice of its bark serve as an excellent diuretic.

FOR VARIOUS MEDICINAL PURPOSES.

IGASUD or PEPITA DE SAN IGNACIO (*Strychnos ignatii* Berg.), a trailer which is only found in Visayas, principally near Catbalogan; the seeds of its fruit have various medicinal or antidote uses—stomachic, emetic, styptic, for paralytics, for women during parturition, for malarial fever, for rheumatism and indigestion, for contractions of the nerves, and pains in the body; of all the trailing plants in the islands this is probably the most highly esteemed; the fruit is often as large as a pomegranate.

PILIPOC; a bitter medicine, useful as a stomachic, an antidote, and a febrifuge.

Resins.—In the Philippines thrives a large family of resin-bearing trees. Those best known are—

ANTONG or BREA NEGRA (*Canarium pimela* Kom.); for illumination.

ARALIACEÆ, the LIMOLIMO (*Heptapleurum caudatum* Vid.), furnishes a resin used in making varnishes.

BURSERACEÆ, ABILÓ (*Garuga floribunda* Deene.); used in medicine.

PILI or BREA BLANCA (*Canarium album* Bl.); for calking ships.

PAGSAINGIN (*Canarium cumingii* Engd.); for the same purposes.

CONIFERÆ, GALAGALA or PIAYO (*Agathis orantifolia* Salisb.); for burning, lighting, and the manufacture of varnishes.

DIPTEROCARPACÆ APITONG (*Dipterocarpus grandiflorus* Bl.); for illumination.

BALAO or MALAPAHÓ (*Dipterocarpus relutinno* Bl.); for calking.

MAYAPAS (*Dipterocarpus turbinatus* Gaert.); similar to the preceding, for the same purposes.

DUAGLING (*Dipterocarpus* sp.); for illuminating purposes.

GULJO (*Shorea guiso* Blummie); for the same purposes as the preceding, as does the Yacal (*Hoprea plajata* Vid.).

LAUA LAUOAN (*Anisopetes thurifera* Bl.); for burning and the manufacturing of varnishes and for calking.

PAUA (*Dipterocarpus vermicifluus* Bl.); for lighting.

ENGSPHORBIACEÆ, ALIPATA (*Excoecaria agallocha* L.); a remedy for the bites of poisonous animals.

BIRUNGÁ (*Macaranga tanarius*, Mull-Arg.); medicinal resin.

TOGOCAM (*Claoxylon wallichianum*, Mnell. Arg.); for illuminating and as a medicine.

GUTTIFERA, BINUCAO (*Garcinia* sp.); used in medicine.

LEGUMINOSÆ, ADYANGAO (*Albizia procera* Benth.); used as incense.

CATÚRAY (*Sesbania grandiflora* Pens.); having medicinal properties.

CUPANG (*Parkia roxburghii* G. Don.); useful for illuminating purposes.

COGONTOCO (*Albizia saponaria* Blume.); for the same purpose as above mentioned.

MELASTOMACEÆ, BOTA-BOTA (*Melastomia obolutum* Jack.); for illuminating purposes and calking ships.

RUTACEÆ, CAJEL (*Citrus aurantium* L.); for illuminating purposes.

SAPINDACEÆ, BALINGHASAY (*Buchanania florida* Schan.); illuminating and calking ships.

LIGÁS (*Semecarpus perrottetii* March.); yields an illuminating resin.

URTICACEÆ, BREADFRUIT or ANTIPOLO (*Artocarpus incisa* L.); a medicine and bird lime for catching birds.

AMBLING (*Artocarpus orata* Bl.); for making varnish.

CAMANSÍ (*Artocarpus camansi* Bl.); a medicine and drier.

NANGÁ (*Artocarpus integrifolia* Linn.); for illuminating purposes.

Gums or almacigas.—The names of almacigas resins, the most valuable being found in the Calamianes, in Mindanao, especially Dávao, and in Illocos.

GUM RESINS.—The principal trees which produce gum resins are:

ANACARDIACEÆ, CASOY, or BALÚBAD (*Anacardium occidentale* L.); used in the manufacture of varnish.

APOCYNEÆ, DITA (*Alstoria scholaris* R. Br.); a medicinal gum resin.

EUPHORBIACEÆ, a medicinal resin from the BIGABING (*Macaranga mappa* Mull. Arg.) and from the BUTA (*excoecaria*).

GUTTIFERA, the PALOMARIA, or BITAO (*Calophyllum sp.*), BITANHOL (*Calophyllum wallichiana* Planch.), GUTAGABY or TANGLANANAC (*Garcinia Morella* Derr.), GATASAN-PULA (*Garcinia ruminosa* Choisy), AROMO (*Acacia farnesiana* Willd.), NARRA ENCAR-NADA (*Pterocarpus indicus* Willd.), DUGOAN (*Myristica sp.*), BONGA (*Areca catechu* L.), LUCBÁN or NARANJO (*Citrus decumana* Murr.), BALETE (*Ficus indica* Bl.), and BAX-YÁN tree (*Ficus sp.*); produce gum resins used in medicines.

The NOTAC (*Polygonum sp.*) produces a gum resin used as a glue and for other industrial purposes.

GUTTA-PERCHA; this valuable article of commerce and industry is found in considerable quantity in Mindanao, and produced from the trunk and branches of several trees of the genera *Ficus* and *Palagium*, called by the natives Solonot. A few years ago a considerable quantity of gutta-percha was exported to England, but on account of the many adulterations made by the Chinese merchants but little is now shipped. (See Forest products; gutta-percha and rubber.)

VEGETABLE WAX; many plants produce a certain amount of an oily material similar to beeswax; is found sometimes as a deposit on the surface of leaves, fruit, or on the bark of the palm *Ceroxylon andicola* and the *Myrica cerifera*; the wax is obtained from the trees by scraping the bark; is found chiefly in Luzón, the Visayas, Calamianes, and Palawan.

Essences or essential oils.—Among the numerous trees of economic value in the Philippines are many varieties from which essences or essential oils may be extracted. Those only used in the present state of the industry in order of prominence are the

YLANG-YLANG (flang-flang), a cultivated and wild tree, often attaining a height of 60 ft., botanically known as *Cananga odorata* (Hook) or *Unona odoratissima* (Bl.), belonging to the custard apple family, producing leaves $2\frac{1}{2}$ by 6 in. and drooping greenish-yellow flowers 3 in. long and of extraordinary fragrance, from which the celebrated attar of ylang-ylang, Cananga oil, or *Oleum anona*, is distilled. The mountain trees produce the best results. The essence is exported to France, England, Singapore, and China, the United States demand being small.

SAMPAGUITA (*Jasminum sambac* L.), belonging to the family Oleaceæ, producing white flowers from which a highly prized perfume essence is extracted by distillation.

CHAMPACA (*Michelia champaca* L.), a garden plant belonging to the family Magnoliaceæ, attaining a conical-shaped height of 13 ft. The flowers, about 1 in. in length, are very fragrant, and produce by distillation a well-known essence.

Vegetables.—The soil, on account of the tropical climate, produces a rich variety of vegetables, with little care on the part of human labor. Under the name of vegetables are included the legumes which serve as food, those the tubers of which are edible, those roots which are edible, and the garden plants. A list of the most important is given in the following:

BAIDANG, cultivated chiefly in the Visayas, has the same uses as the gabe.

BITINGUI (*Phaseolus vulgaris* L.), the true kidney bean, which is found in considerable variety in the garden. Other legumes which are highly prized by the natives are the ZABACHE (*Phaseolus lunatus* L.), the PATANI (*Phaseolus inamomus* L.), and the

FRIJOL (*Phaseolus caracalla* L.) and FRIJOL (*Phaseolus tankimensis* Lour.), a vegetable of Abra highly prized by the natives.

CALABAZA (*Cucurbita sulcata*), a variety of squash which the natives term "Calabásang bilog" (bilog meaning round), of green color, and used for stew; extensively cultivated.

CAMOTE (*Ipomoea batatas* Lamk.), the well-known sweet potato. Its cultivation is greatly favored by mountain races. The plant grows in 5 or 6 months, extending its shoots in all directions, completely covering the ground with its abundant leaves, which are likewise edible. When the ground is given over to the exclusive cultivation of this plant it is allowed to take root in all directions, and as the roots extend and grow the tubers continually, they may be dug up for use at any time of the year. When its cultivation alternates with that of rice or corn, it is necessary to plant anew each year, the product usually being of greater value than in the previous years. The skin and the edible part take different colors—white, yellow, or violet. It is used as food, either boiled or roasted, and also made into preserves and sweetmeats.

COXDOL (*Cucurbita aspera*), a variety of squash which is oval in shape and very suitable for making sweets.

GABE (*Colocasia esculenta* Schott), introduced from Asia, is now extensively cultivated in almost all the islands, especially in the mountain regions. Its large roots and young leaves make an excellent food for the natives. The roots are also suitable for sweets. There are three principal varieties. The best known is the Variegata.

GARDEN PLANTS.—Although the natives do not care much for the cultivation of these plants, gardens are found near the large centers of population, generally cultivated by Chinese, the products being used by Europeans. Among the vegetables cultivated are the onion, garlic, asparagus, radish, cabbage, artichoke, lettuce, endive, pepper, tomato, carrot, celery, parsley, and the haras (*Anethum fennicum*), a native plant whose fruit contains seeds having a sweet flavor similar to anise.

MILONDAGÁ (*Cucumis luzonicus*), meaning a melon of the size of a mouse, with a flavor similar to the cucumber.

MONGO (*Phaseolus mungo* Bl.), smaller than the lentil, but of the same flavor, cultivated on a large scale, as it is the principal food of many towns.

NAMI-CONOT (*D. peataphylla* L.), same genus and uses as the ube.

PACUAN or SANDIA, a variety of watermelon.

PAQUIT (*D. divaricata* L.), same uses as the ube (see).

PATANI (*Phaseolus inanomus* L.), highly prized by the natives.

PATOLA (*Cucumis acutangulus*), a variety of cucumber, large and long in size, of a sweetish flavor and agreeable odor, eaten green or boiled.

PEPINO, a cucumber eaten boiled or pickled, and also served as salad.

POTATO (*Solanum tuberosum* L.); in the Philippine archipelago this valuable tuber is cultivated with success in certain elevated localities, such as the mountains of Benguet, but the tubers produced are small. The annual production of potato amounts to 700,000 piculs (98,000,000 lbs.).

POTATO, sweet, *see* Camote.

SANDIA or PACUAN, a variety of watermelon much prized.

SITAO (*Phaseolus caracalla* L.), a leguminous plant producing a vegetable about 1 ft. long.

SQUASH, several varieties.

TABACOG (*Cucumis melo*), the true melon, although possessing a delightful aroma, never reaches the flavor of those of Europe.

TONGO (*D. papillaris* L.), same genus and uses as the ube.

TABAYAG (*Lagenaria vulgaris*), a variety of squash, the meat of which is soft and smooth to the touch.

TUQUE (*D. sativa* L.), same genus as ube, highly prized and extensively cultivated.

UBE (*Dioscorea alata*); the rhizome makes a healthy food of a sweet taste. It is somewhat sour when raw, but is rendered sweet and nutritious by boiling. Its cultivation is simple, similar to that of the potato. It is necessary to carefully prepare this tuber and its analogous varieties for eating; when not done, they are poisonous. The best variety is called the Cebú ube, although it comes from Bohol, which makes a most delicious jelly, highly and universally prized. Various species of the same genus grow spontaneously or are cultivated for their edible roots, which attain enormous size. Cultivated like the potato.

WATERMELON grows extensively in all parts of the archipelago, the best coming from Rizal.

ZABACIE (*Phaseolus lunatus* L.), greatly prized.

There are also some species of the genera *Dolichos* *Vigra* *Pachyrhizus* and *Prophocarpus*, which produce vegetables or edible seeds, but less esteemed than the genus *Phaseolus*.

FLORA.

The flora of the Philippine Islands in general is tropical. In Mindanao and the Sulu Archipelago it is equatorial, the indigenous growth of the durian (*Durio zibethinus*) and the mangosteen (*Garcinia mangostana*), both plants near the equator being common. From those islands the tropical forms of vegetation lessen until the parallel of Manila, where the two floras have their dividing line. To the N. is found the pine and the vegetation of the subtropical belt, and to the S. the tropical families of Myrtaceæ, Lauraceæ, Orchidaceæ, etc.

There are notable differences in the vegetation on the Pacific and China seacoasts. In the former the rains are more copious, while the latter, covered with compact mountain ranges, has a more limited agricultural zone. Here are forests containing an abundance of ferns, orchids, palms, aroids, and *Melastomaceæ*, and although the fir tree is not found, others, such as the almaciga (*Agathis loranthifolia*), various species of *Podocarpus*, and the agojos (*Casuarina equisetifolia*), grow luxuriantly. So, too, where the hand of man has not interfered with nature, two kinds of vegetation are seen; either the land is covered with extensive forests or with grass of various species, the greater part belonging to the genera *Saccharum*, *Anthistiria*, and *Imperata*.

A study of the distribution of species in relation to various latitudes and altitudes shows the Philippine flora analogous to that of Sumatra and different from that of Java, there being a less number of species here than in Sumatra. Also identical species are less abundant on the Pacific coast than on the coast of the China Sea. Accepting the classification forest flora and agricultural flora, the first is divided as follows:

Mangrove swamp, vegetation along the seashore.

Vegetation in the lowlands of less than 700 ft. altitude.

Vegetation of the zone between 700 and 3,300 ft. elevation.

Vegetation of the mountain zone between 3,300 and 6,000 ft.

Vegetation of the higher mountain zone between 6,000 and 10,000 ft.

The second class is made up of various cultivated plants of commercial or other uses.

Pasturage.—The pastoral pursuits are also extensive. The carabao, or water buffalo, is the most useful animal in the Philippines, and is numerously raised in all the provinces where the peculiar conditions of marsh land and rivers are found. The Philippine animal is larger than the ox, more powerful and less docile. Coming originally from India, it is now common to all the warm latitudes of the Eastern Hemisphere. In the Philippines it is used in draft, carriage, and tillage. The female gives more milk than a cow, from which "ghee," a kind of butter, is made. The hide is almost hairless and very tough, making a valuable leather. The flesh is not very palatable. Horses, cattle, hogs, fowls, and other large and small animals, including sheep, are raised.

MINERALS.

The mineral resources of the archipelago are sufficiently known to indicate their value as commercial products, but to what extent scientific exploration and exploitation will determine. It is claimed that black lignite, the coal of the archipelago, is, so far as now known, the

most valuable mineral asset of the Philippines, and is found in many of the islands from the Luzón peninsula S. through the Visayas to Mindanao.

From a mineralogical standpoint, the best authorities are the Spanish mining bureau, the researches of Ashburner, and technical publications of Semper, Santos, Roth, Drasche, and Abella and others; also the travels of Comyns, Jägor, Worcester, and others.

The use of gold in exchange and adornment and copper for utensils was common among the natives upon the first landing of the Spaniards. The mining of metals was never systematically encouraged by the new occupants of the islands. The native methods were, and still are, confined to placer gold washings; their methods of working quartz being primitive and unsatisfactory. Foreign enterprise has invariably been attended by failure, owing to revolutions, burdensome laws and regulations, scarcity of skilled labor, and impracticable expenditure of working capital.

Since American occupation miners and prospectors have often preceded the troops. The mining bureau at Manila, by direct report through the miner or prospector himself or officers of the army who have come upon these pioneers, has reports from almost every island. In a majority of cases samples and specimens have been furnished to indicate that the mining industry in the Philippines will meet every expectation. Through these sources the fact has been established to the satisfaction of the bureau that gold, copper, lead, iron, coal, sulphur, granite, marble, petroleum, and other metallic and nonmetallic minerals exist in paying quantities. The influence of the miner and prospector is making itself felt, repeating the experiences of the pioneer days of the mineral-producing American States of the West.

Mineral Products.—The following are the metallic and nonmetallic minerals of the archipelago:

ANTIMONY.—The sulphide (stibnite) is reported at Paracale, in Camarines, and Zambales, Luzón. It does not appear whether in either case the mineral is sufficiently abundant to be regarded as an ore deposit.

ASPHALT is reported in Luzón in Ambos-Camarines, between Lake Buhi and Bató, as well as in Mindanao at Hinatúan, in Surigao.

CLAYS of Los Baños (Laguna) and of Maunrigao (Surigao, Mindanao) are comparable with the best Chinese and Japanese kaolins. It would be easy to import expert potters from those countries. (See also Kaolin.)

COAL of the Philippine Islands is of Tertiary age, and a highly carbonized lignite, analogous to Japanese and Washington, but not to the Welsh or Pennsylvania coals. The native coal might supplant English or Australian coal for most purposes. Lignite is widely distributed in the archipelago; some of the seams of excellent width, and the quality of certain of them high for fuel of this class. Coal exists in various provinces of Luzón (Abra, Albay, Ambos-Camarines, Sorsogón). The finest beds thus far discovered are in the small island of Batán, E. of Albay, Luzón. The seams vary from 2 ft. 6 in. to 14 ft. 8 in. in thickness. The mean of 7 analyses gives the following composition:

Analysis of coal from Batán, Albay Province, Luzón.

Constituent.	Per cent.
Water	13.52
Volatile matter.....	37.46
Fixed carbon.....	44.46
Ash.....	4.56
Total	100.00

One pound of this coal will convert 6.25 lbs. of water at 40° C. into steam at 100° C. The heating effect is about three-fourths that of Cardiff coal. The same beds exist in the adjacent islands—Cácráray and Rapu-Rapu. Concessions for coal mining have also been granted on the main island of Luzón, S. of Batán, at the town of Bacón. The coal field of southern Luzón is said to extend across the Strait of San Bernardino into the N. portion of Sámar. Here coal is reported at half a dozen localities. In Mindoro are large deposits in the extreme S. portion (Bulacao), and on the adjacent island of Semerara. This fuel is said to be similar to that of Batán. The islands of Masbate and Panay contain coal. The deposits thus far discovered are not reported of much importance. Specimens from the SW. portion of Leyte, analyzed in the laboratory of the Inspección de Minas, are of remarkably high quality, but nothing definite about the deposit is known.

The first discovery of coal in the archipelago was made in the island of Cebú in 1827. Since then lignite beds have been found on the island at many points. The most important croppings are on the E. slope, within some 15 or 20 m. of the capital, Cebú. A considerable amount of coal has been extracted, but the industry has not been profitable, in part due to crude methods of transportation. The seams are often badly faulted.

At Uling, about 10 m. W. of the capital, the seams reach a maximum thickness of 15½ ft. Ten analyses of Cebú coal indicate a fuel with about two-thirds the calorific effect of Cardiff coal, and with only about 4 per cent ash.

On the island of Negros, nearly parallel with Cebú, are known deposits of coal at Calatrava on the E. coast, it is believed of important extent. In Mindanao coal is known to occur at 8 different localities, but no detailed examinations have been made. Seven of these localities are on the E. coast and the adjacent small islands. They indicate the presence of lignite from one end of the coast to the other. The eighth locality is Zamboanga.

For details of the Coal Measures of the Philippines, see report to United States military governor in the Philippines, by Charles H. Burritt, first lieutenant, Eleventh Cavalry, U. S. V., officer in charge of mining bureau, Division of Insular Affairs, August, 1901.

COPPER is reported from a great number of localities: Luzón (Lepanto, Benguet, and Ambos Camarines), Mindoro, Capul, Masbate, Panay (province of Antique), and Mindanao (province of Surigao). Mindanao, practically unexplored, is full of possibilities. Northern Luzón contains a copper region which is unquestionably valuable. The best-known portion of this region lies about Mount Data, a peak given as 8,333 ft. (2,500 meters) in height. The range trends due N. to Cape Lacay Lacay. Data itself lies in Lepanto. In this range copper ore was smelted by the natives before Magellan discovered the Philippines. The process is complicated, based on the same principles as the method of smelting sulphosalts of this metal in Europe and America, consisting in alternate partial roasting and reduction to "matte" and eventually to black copper. The process must have been introduced from China or Japan and practiced only by the Igorrotes, who are remarkable in many ways. Vague reports and the routes by which copper smelted by natives comes to market indicate that there are copper mines in various portions of the Cordillera Central, but the only deposits which have been examined with any care are those at Mancayán (about 5 m. W. of Mount Data) and 2 or 3 other localities within a few miles of Mancayán. The deposits of Mancayán are described as veins of rich ore, reaching 7 meters (23 ft.) in width and arranged in groups. Mean assays are said to show over 16 per cent of copper, mainly as tetrahedrite and allied ores. The gangue is quartz. The country rock is described as a large quartzite lens embedded in a great mass of trachyte. An attempt has been made by white men to work these deposits, but with no considerable success. The failure does not seem to have been due to the quality or quantity of ore found.

GAS is said to exist in the Cebú coal fields. It is also reported from the island of Panay.

GOLD is found at a vast number of localities in the archipelago from N. Luzón to central Mindanao, in most cases detrital, and found either in existing water courses or in stream deposits now deserted by the current. These last are called "aluviones" by the Spaniards. In Mindanao some of the gravels are in an elevated position and adapted to hydraulic mining. The placers are washed by natives, largely with cocoanut shells for pans, though the batea is also in use. In Abra are placers. The gravel of the river Abra is also auriferous. In Lepanto are gold veins as well as gravels, close to the copper mines. In Benguet the gravels of the river Agno carry gold. There is also gold in the provinces of Bontoc and in Nueva Ecija. The most important of the auriferous provinces is Ambos Camarines (Norte). Here the townships of Mambulao, Paracale, and Labo are especially well known as gold-producing localities. Mr. Drasche, a German geologist, says that there were 700 natives at work on the rich quartz veins of this place at the time of his visit, about 25 years ago. At Paracale are parallel quartz veins in granite, one of which is 20 ft. in width and contains a chute in which the ore is said to assay 38 ozs. of gold to the ton.

Many other localities in this province have been worked by the natives. The islands of Mindoro, Catanduanes, Sibuyán, Sámar, Panay, Cebú, and Bohol are reported to contain gold, but no exact data are accessible. At the S. end of the small island of Panaón, S. of Leyte, are gold-quartz veins, one of which has been worked to some extent. It is 6 ft. in thickness and has yielded from \$6 to \$7 per ton. In Mindanao are 2 known gold-bearing districts. One of these is in Surigao, where Placer and other townships show gravels and veins; the other is in Misamis. Near the settlement of Iponan, on the Gulf of Macajalar, are reported many square kilometers of gravels carrying large quantities of gold, with which is associated platinum. The product of this district was estimated some years ago at 150 ozs. per month, all extracted by natives with bateas, or cocoanut-shell dishes.

GYPSUM; this mineral is plentiful in the E. part of the central range of Luzón.

IRON; is abundant in Luzón, Cebú, Panay, and doubtless in other islands. In Luzón it is found in Laguna, Pampanga, and Ambos Camarines, but principally in Bulacán. The finest deposits are in the last-named province, near a small settlement named Camachín, which lies in lat. $15^{\circ} 7'$ and lon. $121^{\circ} 12'$ E. approx. A small industry exists here, wrought iron being produced in a sort of bloomery and manufactured into plowshares. The process has not been described in detail. It would appear that charcoal pig iron might be produced to some advantage in this region. The lignites of the archipelago are probably unsuitable for iron-blast furnaces.

KAOLIN; concessions exist for mining kaolin at Los Baños, in Leguna, Luzón. (See also Clays.)

LEAD and **SILVER;** in a mine partially developed near the town of Cebú, on the island of the same name. The most important deposit of argentiferous galena is at Torrijos, on the island of Marinduque. A metric ton, or 1,000 ks., is reported to contain 96 grams of silver, 6 grams of gold, and 565.5 ks. of lead. In Ambos Camarines, Luzón, lead ores occur, but are worked only for the gold.

LITHOGRAPHIC STONE is found at San Mateo, Rizal, Luzón. Should this turn out to be of good quality and in large blocks, the deposit would be a treasure.

MARBLE of fine quality occurs on the small island of Romblón, and is much employed in churches in Manila for baptismal fonts and other purposes. Marbles are also quarried at Montalbán and at Binançonan, in Rizal (Mórong), Luzón.

MERCURY is reported in Panay and Leyte. (See Quicksilver.)

NITER is found in the caves at several points in the Philippines, very probably originating in the dung of bats and other animals. It was collected by the insurgents for the manufacture of gunpowder. Among the localities where it is known are the small islands of Masapilit and the town of Placer, in Mindanao.

OCHERS; these nonmetallic substances, in many cases, are mistaken for impure cinabar. It will require scientific investigation to determine their character in the Philippines.

OIL; on Panay, oil is reported at Janúay, in Illoflo. (See also Petroleum.)

OPAL; this nonmetallic mineral occurs in Binançonan, Rizal (Mórong), Luzón, and at Catbalogan, Sámar, and is very common in volcanic regions, but the valuable variety, fire opal, is rare. (See Precious stones.)

PLATINUM is reported in several parts of Mindanao. The finding of this valuable mineral, the supply of which to the commerce of the world is now practically confined to Russia, will prove a valuable acquisition to the mineral products of the possessions of the United States. (See Gold, Mindanao.)

PEARLS; pearl fisheries exist in the Sulu Archipelago and form an important source of wealth. The "round pearls" of Siasi and nearby waters are the finest in the world.

PETROLEUM; in the island of Cebú petroleum is found associated with coal at Toledo, on the W. coast. It is also reported from Asturias, to the N. of Toledo, on the same coast, and from Algeria to the S. Natural gas is said to exist in the Cebú coal fields. Oil is reported at Janúay in Illoflo, Panay, and gas is reported from the same island. Petroleum highly charged with paraffin is also found on Leyte at a point about 4 m. from Villaba, a town on the W. coast.

PRECIOUS STONES have occupied but little attention. Their existence in several varieties is reported. The presence of the opal is established.

QUICKSILVER; the rumors of the occurrence of this metal in Panay and Leyte have failed of verification. Accidental losses of the metal by prospectors or surveyors sometimes lead to reports of the discovery of deposits.

SALT; deposits of rock salt occur in Mount Blanco and Bambán (Nueva Écija), in Calamba (Laguna), and in Placer (Surigao, Mindanao). As might be supposed, the natives extract much of their salt from the sea water.

SERPENTINE is found in Santa Cruz, Zambales, and the same mineral is widely distributed in the islands.

SILVER. (See Lead.)

SULPHUR deposits abound about the numerous active and extinct volcanoes in the Philippines. In Luzón, the principal sulphur deposits are at Daclán, in Benguet, and at Colasi, in Ambos Camarines. The finest deposits in the archipelago are said to be on the little island of Biliran, which lies to the NW. of Leyte.

Zinc, both as the sulphide and as a silicate, exists at Paracale, seemingly in connection with lead ores and gold. Information would point to the conclusion that the zinc ores are to be regarded rather as metallic gangue minerals, than as separate deposits.

Mineral-bearing islands and their resources.

Islands.	Latitude (north end).	Character of mineral resources.
Barán	° 19'	Coal.
Biliran	11 43	Sulphur.
Bohol	10 10	Gold.
Catanduanes	14 8	Do.
Cácríray	13 21	Coal.
Cebú	11 17	Coal, oil, gas, gold, lead, silver, iron.
Luzón	18 40	Coal, gold, copper, lead, iron, sulphur, marble, kaolin.
Leyte	11 35	Coal, oil, mercury (?).
Marinduque	13 34	Lead, silver.
Masbate	13 37	Coal, copper.
Mindanao	9 50	Coal, gold, copper, platinum
Mindoro	13 32	Coal, gold, copper.
Negros	11	Coal.
Panaón	10 10	Gold.
Panay	11 56	Coal, oil, gas, gold, copper, iron, mercury (?).
Rapu-Rapu	13 15	Coal.
Romblón	12 37	Marble.
Sámar	12 36	Coal, gold.
Semerao	12 7	Coal.
Sibuyán	12 30	Gold.
Sulu Archipelago	6 30	Pearls.

FORESTS.

The forest wealth of the archipelago is enormous in variety, quality, and quantity. A classification, based on existing law and amendments prescribing the tariff on state timber and regulations for the utilization of forest products in the public forests of the Philippine Islands, shows 6 groups of woods: (1) Superior group, with 12 species, including the valuable ípil and molave, both woods of export; (2) first group, 17 species, including camphor, betis, malatapay, and palo maría; (3) second group, 48 species, including alalangat and banuyo; (4) third group, 75 species, including abilo, balodo, calumpit, dao, labató, manga, pipi; (5) fourth group, 200 species; (6) fifth group, 13 species and 20 varieties of palm, including the valuable areca, orania, bonga, caryota. This classified list shows 665 species of timber indigenous to the archipelago, and includes, approximately, the most valuable woods of economic or commercial value. The forest products, besides the woods useful for house and ship building, cabinetwork, and other economic and artistic purposes, comprise a large variety of gum-producing trees and medicinal and dye plants, already mentioned. The hardwoods of the Philippines will come into considerable use in the United States. It is quoted in technical journals that Philippine mahogany can be delivered in the United States at about one-half the cost of the South American wood.

The forests, one of the leading sources of the natural wealth of the Philippine Islands, were taken in charge by a forestry bureau, originally created by G. O., No. 50, series 1900, and organized April 14, 1900, and reorganized under acts of June and July, 1901. The field force comprises a chief, assistant foresters, inspectors, special agent,

assistant inspectors, assistant foresters, first-class rangers, and second-class rangers. Forestry stations have been established in parts of the archipelago where the extent and value of the forests warrant. In the markets of Manila 160 varieties of native trees are received; in Mindanao 423 varieties of woods are known. The gutta-percha, rubber, and other gum trees exist in Mindanao and the Sulu group. Licenses to extract forest products from forest lands are issued by the bureau for 1 year, the licensee paying the prescribed valuation on each cubic foot of wood cut, or if other forest products, 10 per cent of the market price in Manila. During the fiscal year 1900-1901 licenses were granted in 25 provinces in Luzón and 28 in other islands. To that date the number issued was 699, viz: Timber, 424; firewood, 192; rubber and other gums, 38; dyewood, 12; gratuitous, 33. Owners of private woodlands must register their titles in the forestry bureau. Eighty-six tracts owned by Europeans and natives thus registered aggregated (1901) 207,159 acres, of which 130,000 acres were in Luzón. The products for the fiscal year 1900-1901 were 146,272 cub. ft. of timber, 24,899 cub. m. of firewood, and 6,140 cub. m. of charcoal.

The government tax paid into the internal-revenue office on forest products from public lands July 1, 1900, to June 30, 1901, amounted to \$199,372.61 on 2,469,930 cub. ft. of timber (29,639,160 B. M.), and 1,955,561 cub. ft. of firewood. About \$5,000 were received on rubber, gums (gums mastic), brea, etc., and \$1,440 on bark, dyewoods and charcoal. The cost of running the bureau was 21 per cent of the receipts. Under Spanish rule the figure was 75 per cent of receipts.

The price of timber in the log at the end of the first haul is from 30 to 70 cents per cub. ft. Wood prices in Manila are quoted: Superior and firs group, \$1.50 to \$2.50 per cub. ft., or \$5 to \$6 Mexican per same for extra sizes of special grades. The government valuation on timber is about 5 per cent of the current market price. The demand for Philippine timber in the archipelago and China is much greater than the supply that is being taken out.

The finest varieties of fine hardwoods for cabinet and furniture work are expected to find an early market in the United States. The total number of known native tree species is 665, which it is expected will approximate 1,000. Upward of 100 varieties of native Philippine woods were selected, polished, and labeled for exhibition at the furniture makers' convention at Grand Rapids, Mich., and to the Pan-American Exposition at Buffalo in 1901. It is expected that these woods can be placed in successful competition with the best woods from Central and South America.

The imports of cabinet woods into the United States during the fiscal year ending June 30, 1901, amounted to—

Mahogany, free.....	32,281
All other, free.....	1,752,612

\$M. feet.. 32,281
(\$dollars.. 1,752,612
do.... 1,240,737

In July, 1901, a cable from the Secretary of War suspended the granting of forestry licenses; suspension since removed. Much of the best timber is inaccessible on account of the absence of roads. The majority of native timbers will not float, therefore bamboo rafts are used. Bamboo finds a ready sale in all the markets. In the 665 native trees known are 11 species of oak, true ebony, teak, camagón, an abundance of narra (Philippine mahogany), tíndalo, calantás, cedar, and other woods suitable for veneering and the most expensive cabi-

network. There are 50 species of trees from which rubber, gutta-percha, and other gums are extracted. A scientific exploitation of the 50,000,000 acres of public forest land is in progress.

Prior to the passage of the Army appropriation bill, under a provision of which the military control of the Philippines was specifically defined for temporary purposes, the exploitation of the forests was carried on under G. O. of the military governor, No. 92, series (June 27) 1900, which divided the timber of the island into six classes. There was no charge for licenses, but a tax per cubic foot was imposed according to class of timber cut, and paid to the government, which was a continuation of the Spanish system with an increase of price.

Forestry officials were on duty October 15, 1901 in the provinces of Cagayán, Pampanga, Iloílo, Unión, Albay, Zambales, Tayabas, Bataán, Tárlac, Ilocos Norte and Sur, Ambos Camarines, Pangasinán, Bulacán, Leyte, Rizal, Batangas, Negros Oriental, Negros Occidental, Cápiz, Antique, Masbate, Romblón, Cavite, in the districts of Zamboanga and Cotabato in the island of Mindanao, and at Sulu.

In Zamboanga (Mindanao) a forestry official collected and returned in 3 months wood and leaves of 423 species. The forestry bureau from its own sources raised the known numbers of tree species in the Philippine Islands from 300 to 665.

Gutta-percha.—An investigation showed that gutta-percha, the most valuable of forest products, was exported in large quantities from Cotabato and Zamboanga (Mindanao) to Singapore via Sulu without the payment of charges, which led to the prohibition of clearance of vessels carrying forestry products which had not paid charges. (Act No. 165, 1901, P. C.) The imports at the port of Singapore of gutta-percha for 1900 from the Philippine Islands were 232½ piculs. Total for all countries 74,066½ piculs, \$5,090,001 value. The Philippine figures are not regarded as representative. United States Army officers report vessels carrying gutta-percha as clearing for Sandakan, British N. Borneo, which does not appear in Singapore figures. The price of the best quality in the market with 78 per cent gutta (the per cent of gutta in the best commercial being 85 to 90) was, 1901, \$260 per picul (133½ lbs.); 1891, \$85. The physical conditions in the S. islands of the Philippines are peculiarly adapted to this valuable culture. The tree attains a height of 50 to 60 ft. and diameter of 1½ to 2 ft. Age, 20 years; maturity, 30 years. In Java trees fruit at 8 years and at 15 have a diameter of 1½ ft.

The propagation and growth of the gutta-percha tree is now occupying a large share of time and expenditure by the colonial governments of Holland, Great Britain, France, and Germany. The first two own the entire present producing gutta-percha area in Asia, and have established experimental and propagating gardens.

Rubber.—The cost of planting rubber seeds on land cleared of coffee plants or left growing is \$2 per acre. The first good yield is 6 years. To plant twice the number of trees needed per acre and cutting one-half at the end of the third year gives returns for expenses to date. The planter's return is quoted at \$150 to \$200 per acre. The rubber crop at present prices, 1901, is quoted at 94 cts. per pound in London. This does not include rubber-vine culture.

The giant rubber vine and several other indigenous varieties have been found in large quantities in several of the Philippine islands. These islands are credited with exportation of 36 piculs of "Borneo"

rubber (from vines) during 1900, which establishes the existence of the plant. A Ceara rubber tree planted in Manila in 1 year reached a height of 21 ft.

There are also several varieties of trees producing the sap out of which gutta-percha is made.

Dammar and gum mastic are found in quantities in the southern islands. Teak, one of the most valuable of shipbuilding woods, is also abundant.

Philippine woods.—The following is a list of Philippine woods of economic value:

ACLANG-PARANG (*Albizia* sp.); medium weight, dark ash color.

ACLE (*Mimosa acule* Bl.); gives logs up to 32 ft. long by 28 in. square; dark, dull red; strong, tenacious, durable, and takes a good polish; much used for house construction and shipbuilding; an excellent charcoal.

ALAGAO (*Premna* sp.); heavy; ashy color.

ALAHAN (*Diospyros* sp.); heavy; ashy color.

ALMACIGA OR ANTANG (*Dipterocarpus* sp.); light, ashy color; gives a valuable gum.

ALINTATAO (*Diospyros philippinensis* F. Vill.); dark, hard, wood, like ebony.

ALUPAY OR LECHEAS; heavy, dark gray color.

AMUGUÍS (*Cyrtocarpa quinquefolia* Bl.); hard; light red or flesh colored, and sometimes marked with lead-colored spots, with numerous pores of moderate size; is employed in house and ship building; subject to the attacks of white ants, called "Anay."

AMUYONG (*Melodorum fulgens*); light, straw-colored wood.

ANAGAP; 60 ft. high; logs 18 ft. long by 16 in. square; grayish yellow, of fine grain and somewhat brittle; used for furniture and house trimmings.

ANOSEP OR ANUSEP; brownish or ashy red color and fine grain, with small pores, but somewhat fibrous; used for building.

ANTIPOLO (*Artocarpus incisa* L.); large size, grayish yellow to canary yellow and even dark red, sometimes marked with numerous white spots; used for outside planking and keels of vessels, and somewhat for cabinet work.

ANUBING OR ANUBIONG, OR ANUBIN (*Artocarpus ovata*); moderate size; brownish yellow to dark red; of fine texture, with small pores; used for rafters in the native dwellings.

APITÓN (*Dipterocarpus grandiflorus* Bl.); very large size; light or dark greenish gray, with lighter or even white spots; logs up to 70 ft. long by 24 in. square; serves for furniture and general joiner's purposes.

ARANGA (*Homalium* sp.); very large size; logs up to 75 ft. long by 24 in. square; reddish color, with violet stripes; valuable for sea piling and shipbuilding.

ASAC-TALÓN; heavy wood of dark red color.

BACAUAN (*Bruguiera caryophylloides* Blum.); heavy weight; dark red color.

BAGARILAO (*Nauclea* sp.); light wood, dark red color.

BÁHAY (*Lepidopetalum perrottetii* Blum.); medium weight; straw colored.

BALACAT (*Zyzyphus* sp.); light straw colored; medium weight.

BÁLÁO, MALAPAHÓ OR PANAÖ (*Dipterocarpus vernicifluus* B. L.); medium to large size; yellowish white or light greenish gray, sometimes with tints of light rose and yellowish red; used for house building, and somewhat for ship construction; its resinous gum, fluid and odorous, is employed for varnishing furniture, picture frames, and floors of rooms.

BALAYOHOD; dark grayish; medium weight.

BALIBAGO (*Hibiscus tiliaceus* L.); light white wood.

BATITINAN (*Lagerstroemia batitinan*); first-class wood; large size; logs up to 40 ft. long by 18 in. square; ashy red to intense olive-brown color; strong, tough, and elastic; used for ships, planking above water, and for furniture, being much stronger than the teak and advantageously replacing it.

BANABÁ (*Lagerstroemia speciosa* Pers.); 30 to 50 ft. high; reddish white to dull red; used for ship and house construction, preferably the red variety; is strong and resists the elements well.

BANATANHISAN; heavy wood of light-brown color.

BANGCAL OR BANCAL (*Sarcococca cordatus* Mig., *Nauclea glaberrima* D. C.); large size, logs up to 24 ft. long by 16 in. square; golden-yellow color or greenish yellow; used in house building and in general joiner's work, but principally for the construction of small canoes.

BANI, light white wood.

BANNIN; heavy white wood.

BANSALAGUI (*Mimusops elengi*); first-class wood for its strength, elasticity, and durability; logs up to 40 ft. long by 18 in. square; reddish white with ashy spots or uniform bright red; used in shipbuilding, suited for making tool handles and adapted to turning.

BANSIO; whitish wood; medium weight.

BANTIKUI; heavy, fine-grained wood.

BANUYO (*Dipterocarpus* sp.); straw colored, medium weight.

BARÚSANG; heavy grayish yellow.

BATICULING or BATICULIX (*Milingtonia quadripinnata* Bl.); yellowish white or greenish white; easy to work, takes a good polish, and employed for joiners' work.

BATINO (*Dipterocarpus* sp.); straw colored, medium weight.

BAYUCAN (*Dipterocarpus* sp.); heavy wood, similar in appearance to maple.

BETIS (*Azaola betis* Bl.); logs up to 65 ft. long by 20 in. square; brownish red or light red; used for building keels of vessels, also for fresh-water piling, piers, wharves, etc.

BINAYOYO; heavy reddish wood.

BINNANG (*Macaranga mappa* Mull. Arg.); very light wood; grayish white.

BINUÑGA (*Macaranga Tanarius* Mull. Arg.); reddish wood, medium weight.

BITAG (*Calophyllum* sp.); reddish-brown wood; medium weight.

BITANG (*Calophyllum spectabile* Willd.); grayish wood; medium weight.

BITANHOL or BITANJOL. (*See* Palo Maria.)

BOLONGITA, BOLONGETA, or BOLONZETA (*Diospyros pilosanthera* Bl.); light-red color, or dark red, with streaks and spots of black; very useful for building and cabinet work.

BAYUG (*Plerospermum acerifolium* Willd.); grayish-yellow wood; medium weight.

BUCBUC (*Streblus*, sp.); heavy white wood.

BÚLAC; white wood; very light and pithy.

BUNA; heavy, grayish-yellow wood.

CABA (*Fragreea* sp.); light whitish wood.

CABUY (*Citrus hystrix* V. C.); heavy white wood.

CALAMANSANAY (*Stephogyne* sp.); rosy white to bright red; useful for building and construction.

CALANTÁS or PHILIPPINE CEDAR (*Cedrela odorata* Bl.); logs up to 40 ft. long by 35 in. square; flesh color, brick red, or in some varieties, a pale ashy red; used chiefly for the manufacture of cigar boxes and makes handsome inside house fittings.

CALIMANLAO (*Diospyros* sp.); light yellowish-white wood.

CALOBCUB (*Engenia macrocarpa* Rob.); heavy wood, dark brown to black color.

CALUMPANG (*Sterculia foetida*, L.); very great size; brownish-yellow color; easy to work, but not lasting; used for boards.

CALUMPIT (*Perminalia edulis* L.); moderate size; dull yellowish color, with ashy spots, or of a uniform ash color; ripe fruit is edible; used in some places for dyeing cotton a dirty straw color.

CAMAGÓN (*Diospyros pilosanthera* var.); logs 9 or more ft. in length up to 12 in. in diameter; black with narrow brown or yellowish-red streaks and sometimes with black spots; takes a good polish, and does not curl; highly valued for cabinet work, and often confounded with ebony.

CAMAYÚAN; red violet, and bright red or brownish red; employed for building purposes; both in the form of small pieces and in boards.

CAMÚNING (*Muraya exotica* L.); 12 to 15 ft. high; bright ocher yellow, uniform or with wavy streaks and spots of brown; used chiefly for cabinet work; the Moros use it in making handles for their weapons; takes a good polish.

CAÑAFÍSTULA (*Cassia fistula* L.); medium weight wood, white or light reddish in color.

CANI-OI; grayish color, medium weight.

CARONSAN; heavy grayish white.

CATMÓN (*Dillenia Philippinensis* Rolph); heavy wood, resembling rosewood in appearance.

CAYANTOL; heavy grayish white.

CAYATAO; heavy reddish.

CAYTAN (*Zanthoxylum oxiphylum* Edg.); heavy grayish yellow.

CUBI; yellowish brown with greenish spots; used in building, chiefly for joiners' work.

CULING-MANOC; rosy white to brick red, sometimes with streaks and spots of lighter color; good for building purposes, although not in common use; somewhat used for cabinet work.

CULIS (*Memecylon edula* Roxb.); heavy grayish yellow.

CUPANG (*Parkia Roxburghii* G. Don.); light, reddish-brown color.

DAO (*Dracontiamelum* sp.); light; dark grayish.

DALE (*Terminalia*); reddish brown; medium weight.

DANGAY or BANGAY (*Grewia* sp.); reddish gray medium weight.

DANGÓN or DANGLIG (*Dipterocarpus* sp.); grayish yellow; medium weight.

DINGLÁS (*Buciba comintana* Bl.); logs up to 30 ft. long by 16 in. square; brownish or ashy red; very durable; employed in the construction of buildings and ships.

DILANG-BUTIQÚ (*Podocarpus* sp.); light gray; medium weight.

DITA (*Alstoria scholaris*); grayish yellow; medium weight.

DOLITAN-PUTÍ (*Garcinia* sp.); heavy grayish yellow.

DÚBAT (*Eugenia* sp.); heavy dark red.

DÚNGOL, DUNGON, or DOXGOX (*Stereulia cimbifromis* D. C.); logs 50 ft. long by 20 in. square; pale reddish, used for roof timber and for keels of vessels; strong but does not resist the attacks of sea worm.

ÉBANO, EBONY, or LUYONG (*Diospyros nigra* L.); differs from camagón in its more intense and uniform black color, without brown or yellow streaks; very valuable for cabinet work, and also employed in making gunpowder.

GATASAN-PULÁ (*Camiguina* sp.); heavy red wood.

GUEYALAS; reddish brown; heavy wood.

GUÍJO, GUISO, or GUÍSOC (*Dipterocarpus guiso* Bl.); logs up to 75 ft. long by 24 in. square; light red to dark red; very durable, strong, tough, and elastic; in Manila used for carriage shafts; in Hongkong, for wharf decks and flooring.

GUIM; heavy grayish yellow.

GUYO; heavy reddish yellow.

HALUPAG; heavy red wood.

HIMBABAO; grayish yellow, medium weight.

ÍLÁNG-ÍLÁNG or ALANG-ÍLÁNG (*Unona odoratissima* L.); white wood, soft, does not last well, and subject to the attacks of insects.

ÍPIL or YPIL (*Eperua decandra* Bl.); logs up to 50 ft. long by 26 in. square; usually dark red; sometimes ocher yellow; has the good qualities of molave, except resistance to sea worm; excellent for building purposes and joiners' work, and for railroad sleepers.

JAGUD; very light whitish wood.

LANAAN (*Anisoptera thurifera*); dark grayish; medium weight.

LANETE, LANATE, or LANITE (*Anasser laniti* Bl.); logs up to 25 ft. long by 18 in. square; bone or ashy white with white spots; used for cabinetwork, carved objects, musical instruments, inside decorations, and turning; also for making match boxes.

LANÚTAH (*Hibiscus*); reddish white or light red color, with narrow yellowish streaks; easy to work; commonly employed in cabinetwork and for inside finishing of houses.

LAUAN, LAUAN, or SAUDANA (*Dipterocarpus thurifera* L.); logs up to 75 ft. long by 24 in. square; reddish white or ashy with brown spots; used principally for the construction of canoes.

LIGA; heavy reddish gray wood.

LÍPO (*Eugenia* sp.); heavy white wood.

LOCTOR (*Ficus laurifolia* Blanco); grayish yellow; light weight.

MABOLO (*Diospyros isocolor* Willd.); very heavy white wood.

MACASIM, MACASIN, or MACAÁSIM; 2 varieties, the red and the white; former is used for house and shipbuilding, latter for inside housework and flooring.

MACUPA; very heavy red wood.

MAGARAMBULO; grayish yellow; heavy weight.

MALAANUNANG (*Shorea malaanunang* Bl.); light wood; grayish yellow.

MALABAYABAS; very heavy wood; dark brown or black.

MALABONGA (*Laurus herandra* Pers.); moderate size; light red with orange streaks and sometimes with lead-colored spots; especially used for making common boxes.

MALACADIÚS (*Litsea chinensis* Lam.); canary yellow, darkening with time, and taking on greenish brown tints; used for beams and ribs for shipbuilding, and also gives good boards.

MALACAINOTE; very heavy wood of reddish-brown color.

MALACATMÓN; several varieties, 2 of them deserving special mention; first, brick red, with spots and streaks of black; second, red with a few streaks and spots of lead color; both somewhat used for building purposes.

MALACUMÓN (*Dillenia* sp.); heavy straw colored.

MALADÚSAT, MALARÚSAT, or MALARÚHAT (*Myrtus subrubens* Bl.); large size; brownish-yellow color, with streaks of intense brown or ash; gives good boards, and somewhat used in making common furniture.

MALAGAITMÚN; heavy straw-colored wood.

MALAIBA (*Phyllanthus* sp.); light wood; whitish color.

MALAITMÓ (*Celtis philippinensis* Bl.); heavy, light colored.

MALÚBIG (*Syzygium* sp.); heavy wood of dark gray color.

MALANANGCÁ; heavy white wood.

MALAPAHO (*Dipterocarpus velutina* Bl.); heavy, dark, red wood.

MALASANTOL (*Thespesia populnea* Corr.); heavy wood, whitish color.

MALATALAN or MALATÁLANG; brittle wood of reddish color with spots and streaks of black; very little used for building.

MALATAPAY (*Alangium octopetalum* Blanco); small tree and not abundant; yellowish wood spotted with brownish black; highly valued for the construction of fine furniture.

MALATIAONG; heavy wood; grayish yellow.

MALATO; light wood; reddish color.

MALATOOB; dark-gray wood; medium weight.

MALATUMBAGA (*Crudia spicata* D. C.); large size; flesh red to brick red; little employed for building purposes; gives very good boards for box making.

MALAÚHUD; straw colored; medium weight.

MALAYA; dark gray; medium weight.

MAMBÓG (*Stepheneyne diversifolia* Hook); light wood; grayish white.

MANABANG; heavy wood; yellowish white.

MANCALAMÍAN; reddish color with lighter streaks; little employed in building, being used only in Luzon.

MANAYAO; grayish yellow; medium weight.

MANCONÓ (*Xanthostemon verduganianus* Nav.); very hard and heavy; found in Mindanao; deep chocolate color.

MANGACHAPUY or MANGACHAPOI (*Dipterocarpus mangachapoi* Bl.); logs up to 55 ft. long by 20 in. square; 2 varieties, red and white; very elastic, and when seasoned withstands the climate as well as teak; used for masts and decks of vessels, and for all work exposed to sun and rain.

MANGASINORO (*Fugroca volubilis* Jack.); very large size; ashy yellow; soft and not very durable; little used in building.

MANICNIC, MANIPNIP; ashy red or light ashy; used in house building not very extensively.

MAPULAT (*Palagium* sp.); straw colored; medium weight.

MARA, MARAN, or MÁRANG; reddish yellow, sometimes dirty greenish white.

MÁYAPI or MAYAPIS (*Dipterocarpus mayapis* Bl.); large size; reddish with colored streaks and spots; soft and does not last well; considerably used for box making.

MIDBID (*Lagerstramia* sp.); heavy wood; reddish-brown color.

MOLAVE (*Vitex geniculata* Bl.); logs up to 35 ft. by 24 in. square; yellow, yellowish green, or ashy; resists sea worms, white ants, and the action of the tropical climate. Extremely strong and durable, lasts well under ground; very highly valued for building purposes, called by the natives the "queen of woods."

MULANG-U; heavy wood, dark gray color.

NARRA, NAGA, or AGANA (*Pterocarpus santalinus* L.); logs up to 35 ft. by 26 in. square; known as the mahogany of the Philippines; scarlet to blood red; take a beautiful polish; much employed in the manufacture of furniture; from the bases of the trunks of the largest trees magnificent pieces are sometimes obtained of sufficient size to make tops for large dining tables.

NARRA BLANCA or NARRA AMARILLA (*Pterocarpus pallidus* Bl.); ocher yellow with brown streaks; in time it takes a brownish yellowish color; employed in finishing furniture.

NATO (*Stereolia balanghas* L.); reddish white with delicate spots of more intense color; sometimes rosy, occasionally brick red; used especially for joiners' work.

OPAC; very light wood, yellowish white in color.

PAGATPAT, PALOPAD, or PALATPAT (*Sonneratia pagatpat* Bl.); moderate size; somewhat resembles cork; reddish color of various tints; used somewhat for building, especially for work under water.

PAHUTAN (*Mangifera longipes* Griff); light white wood.

PAIT; very heavy red wood.

PAITAN; light white wood.

PALAYAN or ROBLE; several species of the genus *Quercus* are found in the Philippines.

PALMS; for structural purposes the species known under the name of *Palma brava* are the most important; resisting moisture; trunks are converted into tubes for conducting water, used for rafters in house building, for piles, and for telegraph poles; from the hard outer wood handsome canes and bows are made.

PALO MARIA, or BITANHOL, or BITANJOL (*Calophyllum inophyllum* D. C.); moderate size; light red; exceedingly tough and lighter than molave; much used for ship-building; acquires gigantic proportions in Mindanao.

PALO NAPUY; violet with blackish spots; somewhat employed for building purposes; hardly known in the Manila market, but not to be despised.

PALSAGUYUGUIN; grayish yellow, medium weight.

PALUSAPIS; light wood, dark straw color.

PANAO; light grayish yellow wood.

PANGUISAN; ashy yellow color; somewhat used for building purposes.

PANAYBANAY (*Pterospermum* sp.); very heavy wood, grayish brown.

PANOSILO; yellowish white; not very beautiful; not very much used.

PASAC (*Mimosaes erythrorhylon* Bos.); large, hard, tough, and durable, reddish and durable, reddish white or flesh red color; employed for building purposes; like yacal, but inferior to it.

PASQUIT (*Memecylon paniculatum* Jack.); heavy wood of reddish color.

PILL (*Canarium* sp.); straw colored; medium weight.

PINO or PALO PINO (*Pinus insularis* Endl.); a very large tree, reaching an extraordinary size in the mountains of Ilocos, Lepanto, and Benguet.

PUSO PUSO (*Litsea littoralis* Benth.); reddish yellow wood of medium weight.

PÚTAT (*Barringtonia racenosa* Bl.); white; medium weight.

PUTOTAN or POTOTAN; reddish-brown wood of medium weight.

SAMPÁLOC (*Tamarindus indica* L.); roots are used for carpenter work.

SANTOL or SANTOR (*Santoricum indicum* Cav.); reddish and of strong texture; little employed for building purposes.

SIBUCAO or PALO-SAPANG (*Cesalpinia sappana*); orange red; pegs made from it are used in the manufacture of small sailing craft in place of iron spikes and nails.

SIRIQUE; grayish yellow; medium weight.

SOLIPA or SÚLIPA (*Sulipa pseudopsisidium* Bl.) canary yellow or greenish yellow; employed for coopers' work.

SUPA (*Dipterocarpus* sp.); large size; yellowish or dirty ocher, becoming brownish yellow in time; very similar to ipil, but inferior to it; employed for house and ship building.

TABIGU-ITIM; heavy wood; deep-red color.

TABOC (*Ægle decandra* Naves); heavy white wood.

TALÍSAY (*Terminalia catappa*); dark straw colored; medium weight.

TAMAUYAN-PUTÍ (*Gymnosporia* sp.); light white wood.

TANGILE or TÁNGILI or TANGUILI (*Dipterocarpus polystermus* Bl.); large size; brownish red; much used for the construction of canoes and also for joiners' work.

TANGISAN (*Ficus* sp.); white wood; medium weight.

TAPAL; very heavy wood, with black and white stripes.

TECA (*Tectona grandis* L.); little known in the Philippines; exists in Mindanao and said to exist in Negros.

TIBAYOS or TUBAYOS; heavy slate-colored wood.

TIBIG (*Ficus glomerata* Bl.); white wood; medium weight.

TINAAN PANTAY; light-gray wood of medium weight.

TINDALO (*Eperua rhomboidea* Bl.); large size; light red, growing darker with age and in time becoming completely black; takes a good polish; used for house decoration and the manufacture of fine furniture; occasionally for building.

TINGÁN-TINGÁN (*Pterospermum obliquum* Blanco); dark straw colored; medium weight.

TOOB (*Bischofia javanica* Mull., Arg.); light gray; medium weight.

TOOC or TOOG; heavy dark-red wood.

TUCANGCALÓ (*Sterculia rubiginosa* Vent. Hook); heavy dark-red wood.

YACAL or SAPLUNGAN (*Dipterocarpus plagatus* Bl.); one of the heaviest and most enduring of the Philippine woods. Reaches a height of 40 to 60 ft., with a diameter of 2 to 3 ft.; logs up to 50 ft. long by 22 in. square; earthy-yellow color; solid and fine texture; proof against white ants and has great strength and tenacity; much used in house building as well as in shipbuilding.

Economic uses.—The uses of the more important woods are:

CABINET WORK: Ebano, camagón, bolongita, tindalo, narra, malapata, alintatao, and camúning for fine furniture; lanete, narra blanca, lanutan, malarúyat, batitinan, and antipolo for common furniture.

SHIPBUILDING: Yacal, betis, dúngeon, and spil for keels and sternposts; antipolo for keels and outside planking; molave for futtock timbers and stems crooks for framework; banabá for outside planking and beams; guijo for beams, masts, and yards; batitinan for keelsons and clamps; mangachapuy for waterways and deck timbers; amuguis for upper works and partitions; palo-maria for futtock timbers, masts, and yards.

CANOES: Tangile, lauaan, malaanonang, balao, mayapis, and many others.

HOUSE BUILDING: Molave for beams, framework, doorcasings, window casings, floor boards, etc.; ípil, same as molave; supa and balao are substitutes for but inferior to ípil; dungan for rafters, door and window joints, clamps, etc.; banabá, employed for various purposes, and especially for all parts exposed to the action of moisture; yacal for framework; amugúis, baticulín, and malatumbaga used in form of boards for partitions, ceiling work, etc.

BOX MAKING: Calantás for cigar boxes and fine boxes in general; tanǵile, mayapis, and malaanonang for common boxes.

FRUITS.

The wild and cultivated fruits of the Philippines are abundant in variety and superior in quality. The introduction of new species from the United States is also successful, particularly grapes, strawberries, blackberries, figs, and walnuts, which flourish in the highlands of Benguet.

The following is a description of the best known fruits, having chiefly in view their industrial and domestic uses:

ANONA (*Anona reticulata* L.); an exotic from Mexico, its meat being white and soft and containing, like the ates, small, black pits; is sweet and fragrant, and has an exterior appearance resembling the common custard apple or bullock's heart. **ATES** (*Anona squamosa* L.); juicy, aromatic, very sweet, very soft, and somewhat peppery; a table delicacy.

BALIMBING (*Averrhoa carambola* L.); has the flavor of a quince, and is used by the natives as food with dry fish or meat.

BANANA; the commonest and cheapest fruit in the Philippines, there being a large number of species, varying greatly in form and taste. It is called platanó by the Spaniards, and sanguí by the Tagálos. The trunk of the banana tree is not solid, but soft and full of minute little tubes or aqueducts, which serve to conduct the sap which sustains and matures the plant within the short space of one year. Shortly after fruit ripens the plant begins to decline and the leaves dry up and fall. The fruit grows in bunches of various shapes, according to the species. Important varieties: Lakatán, very similar to the ordinary American banana; latundán, less yellow and sourer than the preceding, being noted for its digestive qualities; the sabá, which makes a most delicious fritter; the hanipa, sweeter than the sabá, and cultivated principally in Sámar and Leyte; the tambonan, a very common and healthful species; the camada, very large; the tundoc, also large, the skin of which is of a violet color; the binalátong, larger, more delicate, and more fragrant; the torlangdato, called in Spanish "the lady finger;" the pilbitin, a small, sweet, and rich variety; the tarip, the bunǵaran, the putían, the dariao, the mungcó, the talood, the tinumbaga, the dariyas, the bunǵulan, the gloria, and others. P. Delgado enumerates and describes 57 varieties.

CAMIÁS (*Averrhoa bilimbi* L.); when green has an agreeable sour taste, but when ripe is sweet and fragrant; is often pickled or candied, and its juice removes the stain of iron rust and other spots from linen.

CANTALOUPES; of excellent varieties, especially in the provinces near Manila.

CHICO; 2 varieties; the chico sapote or sapote (*Achras sapote* L.) and the chico mamey or chico (*Lucuma mamosa* Gaert.). The sapote is an evergreen tree, with thick shining leaves and milky juice, a native of tropical America. Its fruit is about the size of an orange, green on the outside and black on the inside, sweet, and makes excellent preserves. The chico is smaller, the skin and pulp of deep brown, with brilliant black seeds embedded in it. It contains a pleasant flavored pulp resembling quince marmalade in appearance and taste.

CITRON; fruit very large; is found in abundance.

DUHAT (Lomboy) (*Eugenia jambolana* L.); a tree of hard and durable wood; produces a wild edible fruit, dark purple to black in color, about the size of an olive. Its astringent bark is used in dyeing, tanning, and in medicine.

GUANÁBANO (*Anona muricata* L.); pear shaped, being similar in exterior appearance to the pineapple, containing an agreeable slightly acid pulp; used for preserves.

GUAYABA (*Psidium guayaba* L.); a Tagálo bayabas; when ripe is of yellowish color, and very aromatic, as are the leaves. The pulp is acid, and has different color according to the varieties, white, yellow, and pink. The interior is filled with little hard seeds or pits, which are embedded in the meat. It is a carminative and an excellent jelly and marmalade. Natives use this fruit as food.

LANGCÁ or **NANGCÁ** (*Artocarpus integrifolia* Willd); is perhaps the largest found in the world, some as large as a good-sized water jar. The ripening fruit is recognized by its aromatic and penetrating odor. The fruit cut shows a large amount of yellowish or whitish meat, of which preserves and sweetmeats are made, resembling the date, with an odor like musk. The seeds when boiled or baked resemble the chestnut. The wood of the tree is yellow, solid, durable, and very serviceable for working.

LANZÓN (*Lausium domesticum* Jack or Boboo); is beautiful in appearance and gives a cool shade. The leaves are of a beautiful clear green. The fruit is a yellow berry, the skin being bitter, thin, and fine. Within it are contained fine divisions, as in the lemon, but the flesh is crystalline white, almost transparent, sweetish sour, quite delicate, and very refreshing. This fruit is healthful for those who suffer from heat. The best kind of lanzones grows in Laguna, Luzón.

LEMONS; 7 varieties of this fruit, some of superior quality.

MABOLO (*Diospyros discolor* Willd); is about the size of a quince and contains a large seed. The skin is reddish and velvety. The flesh is white and sweet, but somewhat indigestible, and has a rather strong odor.

MACUPA (*Eugenia malacensis* L.); about the size of a sweet pepper and of somewhat the same shape, rather larger and quite red in color; more lustrous; bitter-sweet in taste, somewhat agreeable, but has no solid flesh which can be eaten.

MAMPÓN or PAJO (*Mangifera altissima* Blanco); very similar to the manga, frequently preserved in brine in the form of pickles; also made into sweetmeats and preserves. There are other small varieties about the size of an olive, which are used in making pickles and preserves.

MANGA. (*Mangifera indica* L.); one of the most exquisite fruits in the world, and the queen of the Philippines. The largest is from 6 to 7 in. in length; flattened. The skin is yellow and rather fine; the interior a fleshy, fibrous drupe, and with more or less of a turpentine flavor, but sweet and delicate. The pit in the center is almost as long as the fruit itself, but very narrow. The leaves are long, wide, and dark green, and an infusion of them somewhat similar to tea. The manga is used as a food, not only when ripe (April), but when green. It is used also for preserves, jelly, and marmalade. The natives make the boiled manga into a kind of relish of sweet-acid flavor, as palatable as the Indian chutney. The best mangas come from Imus, Cavite, Luzón.

MANGOSTEEN or MANGOSTÁN (*Garcinia mangostana* L.); an exotic fruit, grows only in Sulu and some points of Zamboanga and Cotabato, where it is called the "Kings' fruit," because it is so highly prized by the Moro sultans. It is dark red or purple and about the size of an orange. The edible and juicy parts form small, white divisions, very soft, found in the interior; covered with a double skin, reddish in color, and which must be removed before the fruit is eaten. The rind of the fruit, as well as the bark and wood of the tree, is very astringent and has been used in medicine.

ORANGES of various indigenous species are found. The principal is the cajel. Another the naranjita. There are several wild species, one of which is called "amumintay." They are very large, being 12 or 13 in. in circumference, have a thick skin, are very juicy and bitter.

PAPAYA (papaw) (*Carica papaya*, L.); 2 sexes. The male produces tubes filled with small white aromatic flowers; the female yields fruit. The tree resembles a palm, with large broad leaves. The fruit, a small squash in appearance, is ordinarily 10 in. long, commonly of an oblong form, ribbed, with a thick, fleshy rind, and sweet. When it ripens the skin changes from green to a reddish color, as does the flesh also. It is sometimes eaten raw or made into a sauce, or when green is boiled as a vegetable and pickled, in combination with red peppers, spices, radishes, and onions, forming a nice hors d'œuvre, with a yellow sweet-acid sauce, called achora by natives and Spaniards alike. The seeds are an efficacious verminifuge.

PINEAPPLES (*Bromelia ananas* L. or *Ananosa salina* Lindley); have a fine flavor, aromatic and slightly tart on account of the presence of malic acid. It is of more importance however as a textile plant.

RIMA (*Artocarpus incisa* L.), composed of the numerous small female flowers united into one large fleshy mass about the size of a child's head, and is covered with hexagonal marks externally which are the limits of the individual flowers. The flesh is a substantial food, and on this account it is called the breadfruit plant. It is either boiled or roasted and then eaten with sugar or sirup. It is also made into preserves.

SANTOL (*Sandoricum indicum* Cav.); similar to the peach; but larger and the rind thicker. Inside there are several divisions, as in the mangostán, of a white color and bitter sweet taste, each division containing a hard pit, with carminitive qualities. It is used principally for preserves and pickles, although it is eaten raw when ripe. Bulacán, Luzon, produces the best santols.

SAPOTE (*Diospyros ebenaster* Retz) and **Pagápat** (Do Kaki L.), are natives of China.

Among the large number of wild species of fruits found in the Philippines in general, sour, sweet, and somewhat carminitive, may be mentioned the doctoyan, the pananquián, the durion, the abuli, amahit, angiap, amaga, agononan, abubumanu, alanganisan, dae, amamampang, bonano, harobor or marobo, cabaan, carong, eagos, gayan, dalinson, etc., which are described by P. Delgado.

TAMPOY (*Eugenia jambos*, L.); about the size of a small apple, the flesh being soft, sweet, and having an odor like roses. In color and shape it resembles a guayaba.

MECHANICAL INDUSTRIES.

The Philippine Islands, notwithstanding the aptitude of the inhabitants and abundance of raw material for all kinds of fabrics, is not a manufacturing country. There exist, however, some very prosperous industries, generally carried on with primitive implements and methods. The introduction of modern machinery, considering the importance and wealth of the islands, not only as producers, but possessing the necessary resources, would speedily make them a factor as a manufacturing center in the Far East. The most important industries are:

Manufacture of cloth.—The fibers used in weaving are hemp, pineapple, cotton, and silk. The first two are products of the country. Silk comes from China and cotton is imported. Cloth made from hemp alone is called sinamay, which is used for shirts for men and waists and skirts for women. A finer variety of hemp cloth, often confused with pineapple cloth, is called tinampipi. Cloth made from pineapple fiber is called piña, a very delicate fabric used for making handkerchiefs, waists, and other elegant garments. From silk alone, or from a mixture of silk and cotton or pineapple fiber, are made the Philippine jusis, famous for their lightness, beauty, and delicate patterns. From cotton are manufactured heavy blankets, of which a specialty is made in both the Ilocos provinces. In the district of Tondo, Manila City, is a factory in which cotton is woven by means of modern machinery into textile fabrics. In the weaving of these articles not a machine moved by steam, with the exception mentioned, is used, only primitive looms worked by hand and by the most simple methods. Women work the looms, the majority being girls from 12 to 20 years of age. The work is good, considering the simple methods and the primitive machinery used. The provinces of Albay, Batangas, Calamianes, Ambos Camarines, Ilocos, Iloílo, Rizal, and Tayabas are prominent in this line.

Manufacture of mats, hats, etc.—In the manufacture of mats, sleeping mats, hats, bags, cigar cases, etc., intelligence, skill, and patience are shown. This is the more wonderful, as the only instrument used is a sort of knife called gúloc. The materials are rattan, palm leaves, ferns, bamboo, buri, all of which are abundant. The provinces notable for these articles are Albay, Bulacán, Ambos Camarines, Iloílo, Laguna, Pampanga, Pangasinán, and Tayabas.

Manufacture of cordage.—In a suburb of Manila City, called Santa Mesa, and San Juan del Monte, Rizal, are several factories of rope and cordage, in which primitive methods are employed, machinery being only used as a motor of the instruments used.

Tobacco.—In this important Philippine industry the Havana methods of gathering and curing the leaf and manufacturing the product are used. In some places the manufacture is carried on with modern machinery. In all more women than men are employed. The cigarette machines in many factories are worked by steam. The most prominent factories in the archipelago are located in Manila.

Sugar.—In Negros and Pampanga are many iron mills, worked by animal, water, or steam power, for the manufacture of sugar. In Manila there is a large sugar refinery, and another in Malabón, Rizal, S. of Manila City.

Hemp.—The extracting of the hemp fiber and its drying constitutes a large industry, apart from its manufacturing into rope or cloth. It is conducted by means of primitive and simple apparatus. The hemp fiber is found in the market in bunches or bundles, and is classified according to its quality.

Indigo.—The production of indigo is accomplished through several operations—maceration in water, addition of lime, shaking or stirring and decantation of the water, formation of the indigo into masses, and wrapping. It is then placed in wooden boxes and sent to the market.

Alcohol.—The materials used in the manufacture of alcohol are the juice from the nipa or the cocoanut palms and low-grade molasses. Nipa wine is manufactured in Dagupan, Pangasinán, Vigan, Ilocos, Sur Luzon, and Cápiz, Panay. In all the archipelago there are not less than 5,000 stills, the 4 largest in Manila.

Oil.—This product is extracted from cocoanuts, the methods employed being very rudimentary. Other oils extracted are lumbang, castor oil, and those from the peanut and other plants. Essential oils are extracted from the ílang-ílang, sampaguita, and champaca flowers.

Rice.—In tare clearing rice a primitive apparatus called the lusong is employed. The lusong is a large wooden mortar in which the rice is pounded until the husk is removed. One or two steam mills were installed in Calumpit, Bulacán, but were subsequently destroyed in the ravages of war.

Soap.—This article has been made in the islands for a long time, but the methods employed are most primitive. The manufacture of laundry soap is conducted only by Chinese. In Manila there are small establishments in which toilet soap is manufactured.

Starches.—This industry, while small, has abundance of raw material found in the country.

Cheese.—This dairy product is made in small quantities, that coming from Cebú and Laguna being of excellent quality.

Leather.—This industry is but rudimentary, although considering the large number of cattle found in the country it might be made of some importance.

Fisheries.—The marine and fresh-water fisheries are extensive and valuable. A provision in the municipal code authorizes the levying of a tax on the privilege of fishing by municipalities within the limits of their respective jurisdictions.

Shipbuilding.—This important industry is carried on in all the larger islands where transportation is by coastwise and river craft.

Building trades.—This branch of industry is conducted with skill in the better class of structures. In the construction of the light nipa houses and Cogon huts the mechanical ingenuity of the inhabitants is also shown to good advantage.

FOOD PRICES.

The following is a digest of information on the prices, in gold, or in silver, exactly double the figures here shown, of commodities in Manila, taken from Bulletin No. 32, June, 1901, Department of Labor:

Prices of certain articles in common use in Manila, April 1, 1900.

Articles.	In common use among—		
	Whites.	Natives.	Chinese.
Beans, French, dry.....per pound.....	\$0.07		
Bread.....do.....	.04		
Biscuit.....per 18-ounce tin.....	.25		
Butter.....per pound.....	.56		
Candy, caramel lozenge of sugar.....do.....	.06	\$0.06	
Cheese:			
European.....do.....	.37		
Fresh Philippine.....do.....	.20		
Coffee, not roasted.....do.....	.20		
Corn, dry.....do.....	.02		\$0.02
Eggs:			
Fresh.....per dozen.....	.20	.20	
From the provinces.....per 100.....	1.25		
Fish:			
Cod, salt.....per pound.....	.15		
Dry.....do.....			
Fresh.....do.....	10, .15, .20	10, .15, .20	10, .15, .20
Oysters, canned.....per 13-ounce can.....	.25		
Salmon, canned.....per 23-ounce can.....	.20		
Fruit:			
Bananas.....per dozen.....	.04	.04	.04
Oranges.....do.....	.05	.05	.05
Raisins, Valencia.....per pound.....	.30		
Canned, guava jelly.....per 14-ounce can.....	.12		
Canned, mango jelly.....do.....	.20		
Canned, peaches.....per 26-ounce can.....	.30		
Dried, apples, plums, peaches, etc.....per pound.....	.25		
Lard:			
Pure leaf.....do.....	.15	.15	.15
Salted.....do.....	.18	.18	.18
Lentils.....do.....	.20		
Macaroni.....do.....	.07		.05
Meat:			
Beef, canned corned.....per 6-pound can.....	.62		
Beef, dried.....per pound.....		.20	
Beef, fresh.....do.....	.20	.20	
Caribou.....do.....			.15
Chickens.....each.....	.25		
Ducks.....do.....	.25		
Ham, New York.....per pound.....	.32		
Ham, Spanish.....do.....	.37		
Hens.....each.....	.50		
Mutton, fresh.....per pound.....	.20		
Pork, fresh.....do.....	.20	.20	.20
Turkeys.....each.....	3.00		
Milk:			
Condensed.....per 18-ounce can.....	.25		
Fresh.....per $\frac{1}{2}$ liter (0.53 quart).....	.10		
Molasses.....per pound.....		.05	.05
Oil:			
Cocoanut.....do.....	.06	.06	.06
Olive.....per $\frac{1}{2}$ liter (0.79 quart).....	.30		
Pease, chick.....per pound.....	.12		
Pickles.....per 30-ounce bottle.....	.25		
Rice:			
European.....per pound.....	.06		
Saigon or Philippine.....do.....		.02	.02
Salt:			
Common.....do.....	.01	.01	.01
Fine.....per 3 pounds.....	.15		
Shells, salted.....per pound.....			.01
Spices:			
Allspice, whole.....do.....	.25	.25	.25
Mustard.....per 10-ounce packet.....	.20		
Pepper, red, ground.....per pound.....	.25		
Pepper, whole.....do.....	.10	.10	.10
Saffron, common.....do.....			.02
Starch.....do.....	.12		
Sugar, brown:			
First-class.....do.....	.07		
Second-class.....do.....	.06		
Third-class.....do.....	.05	.05	.05

Prices of certain articles in common use in Manila, April 1, 1900—Continued.

Articles.	In common use among—		
	Whites.	Natives.	Chinese.
Tea:			
First-class.....	per pound.....	\$0.75	
Second-class.....	do.....		\$0.25
Tobacco:			
First-class.....	do.....	.25	
Second-class.....	do.....	.15	\$0.15
Third-class.....	do.....	.10	.10
Vegetables, canned:			
Artichokes.....	per 20-ounce can.....	.20	
Pease.....	do.....	.17 $\frac{1}{2}$	
Peppers.....	do.....	.15	
Tomatoes.....	do.....	.17 $\frac{1}{2}$	
Other.....	do.....	.17 $\frac{1}{2}$	
Vegetables, fresh:			
Cabbage, white.....	per 2-pound head.....	.10	
Onions.....	per pound.....	.06	
Potatoes.....	do.....	.05	
Tomatoes.....	do.....	.02 $\frac{1}{2}$	.02 $\frac{1}{2}$
Pot herbs.....	do.....	.05	
Salted, pot herbs.....	do.....		.02
Vermicelli.....	per 3 pounds.....	.50	
Vinegar:			
European.....	per $\frac{1}{2}$ liter (0.79 quart).....	.12 $\frac{1}{2}$	
From the islands.....	per $\frac{1}{2}$ liter (0.53 quart).....	.02 $\frac{1}{2}$	.02 $\frac{1}{2}$
Wine, red:			
Ordinary.....	per 16 liters (16.91 quarts).....	2.00	
Superior.....	do.....	3.25	
Candles.....	per pound.....	.12 $\frac{1}{2}$	
Matches:			
European.....	per (small) box.....	.01	
Japanese.....	per 100 (small) boxes.....	.30	.30
Oil, kerosene, Russian.....	per pound.....	.05	.05
Soap, laundry:			
First-class.....	per 25 pounds.....	1.25	
Second-class.....	do.....	1.00	1.00

Labor.—This question is a difficulty felt all over the islands. The lands are so rich and produce so much for so little work that the native, naturally indolent, finds he is able to support himself with very little labor. His wants are few, his love for idleness is great. Skilled labor is hard to get. A proposition is advanced to allow the Chinese to come in as laborers, but not as merchants, claiming "the unpopularity of the Chinese is due, not to their coming as laborers in the labor market, but as to skill as tradesmen." In the great works which are performed here, it may be thought wise to allow companies to bring in Chinese skilled laborers under a bond to take them out when the work is accomplished. The hope is that the influx of the Americans, the high prices that the Americans give for their work, and the examples of the comforts that the Americans enjoy will teach these people, who are exceedingly imitative, that the things they now regard as mere luxuries are equally necessities, and that a desire for them will induce labor.

WAGE RATES.

The following, taken from Bulletin No. 32, June, 1901, Department of Labor, shows the rates of wages paid in April and May, 1900, in Manila, in 664 establishments, covering 69 distinct industries, of which only the most important are here given. The whole number of employees was 22,155, of which 187 were white, 17,317 native, and 4,651 Chinese. Under each occupation the highest daily rate is first given, followed by the lower daily rates in order, and by the highest

and then the lower monthly rates. Sunday work is more common than in the United States. The prices and wages given are in gold. In the actual transactions silver, of exactly half the value of gold, is used, and the amounts, therefore, in all cases are exactly double those here shown. In all ordinary business transactions in Manila silver is still the money in use. The gold that has come in under the new conditions does not appear to have had any noticeable effect upon the circulating medium, having practically disappeared. Native labor is difficult to secure, especially skilled labor. Throughout the archipelago wages have doubled or trebled since United States occupation. All employees are males, except where otherwise mentioned.

Rates of wages in Manila, April and May, 1900.

Occupations.	Nation- ality.	Hours per day.	Rate of wages.	Occupations.	Nation- ality.	Hours per day.	Rate of wages.
<i>Bookbinding (4 establish- ments).</i>							
Masters	Native...	8	\$1.00 day.	<i>Carriage factory (7 es- tablishments).</i>			
Workmen	do	8	.50 day.	Masters	Native...	8	\$1.00 day.
.....do	8	.37½ day.	.....do	White ...	8	75.00 mo.
.....do	8	.25 day.	.....do	do	8	50.00 mo.
.....do	8	.12½ day.	.....do	Native...	8	50.00 mo.
Workwomen	do	8	.12½ day.do	do	8	40.00 mo.
<i>Brewery (1 establish- ment).</i>				Apprentices	do	8	.30 mo.
Master	White ...	8	150.00 mo.do	do	8	.25 day.
Foreman	Native...	8	30.00 mo.do	do	8	.12½ day.
Workmen	do	8	22.50 mo.do	do	8	.12½ day.
.....do	8	15.00 mo.	.....do	do	8	3.00 mo.
.....do	8	10.00 mo.	.....do	do	8	.75 day.
.....do	8	8.00 mo.	.....do	do	8	.62½ day.
Workwomen	do	8	5.00 mo.do	do	8	30.00 mo.
.....do	8	5.00 mo.	.....do	do	8	22.50 mo.
<i>Carpenter shop (14 es- tablishments).</i>			do	do	8	20.00 mo.
Masters	Chinese ..	10	* .50 day.do	do	8	15.00 mo.
.....do	10	* 15.00 mo.	.....do	do	8	9.00 mo.
Apprentices	do	10	* .12½ day.do	do	8	8.00 mo.
.....do	10	* .10 day.	.....do	do	8	5.00 mo.
Apprentices (chil- dren).	do	10	* .05 day.do	do	8	* .37½ day.
.....do	10	* .07½ day.	.....do	do	8	15.00 mo.
.....do	10	* 2.00 mo.	.....do	do	8	.62½ day.
Workmen	do	10	* 42½ day.do	do	8	.50 day.
.....do	10	* 37½ day.	.....do	do	8	30.00 mo.
.....do	10	* 25 day.	.....do	do	8	15.00 mo.
.....do	10	* 12½ day.	.....do	do	8	12.50 mo.
.....do	10	* 10 day.	.....do	do	8	6.00 mo.
.....do	10	* 11.00 mo.	.....do	do	8	.75 day.
.....do	10	* 10.00 mo.	.....do	do	8	.50 day.
.....do	10	* 9.00 mo.	.....do	do	8	22.50 mo.
.....do	10	* 8.00 mo.	.....do	do	8	17.50 mo.
.....do	10	* 6.00 mo.	.....do	do	8	15.00 mo.
.....do	10	* 5.00 mo.	.....do	do	8	12.50 mo.
.....do	10	* 4.00 mo.	.....do	do	8	9.00 mo.
<i>Carpenters, house (8 establish- ments).</i>			do	do	8	8.00 mo.
Masters	Chinese ..	8	* 1.50 day.do	do	8	.75 day.
.....do	10	* 1.00 day.	.....do	do	8	.50 day.
Workmen	do	8	* .50 day.do	do	8	22.50 mo.
.....do	10	* .50 day.	.....do	do	8	15.00 mo.
.....do	8	* .37½ day.	.....do	do	8	8.00 mo.
.....do	10	* .37½ day.	.....do	do	8	8.00 mo.
.....do	8	* 25 day.	.....do	do	8	8.00 mo.
.....do	10	* 25 day.	.....do	do	8	7.50 mo.
.....do	8	* 15 day.	.....do	do	8	6.00 mo.
.....do	10	* 15 day.	.....do	do	8	5.00 mo.
.....do	8	* 12½ day.	.....do	do	8	7.50 mo.
<i>Alcohol distillery (7 establish- ments).</i>				Workmen	do	8	7.50 mo.
Masters	Chinese ..	12	* 1.00 day.				
	White ...	8	100.00 mo.				

* Also 3 meals and room.

Rate of wages in Manila, April and May, 1900—Continued.

Occupations.	Nationality.	Hours per day.	Rate of wages.	Occupations.	Nationality.	Hours per day.	Rate of wages.
<i>Alcohol distillery (7 establishments)—Continued.</i>				<i>Chocolate factory (7 establishments).</i>			
Masters	White	8	\$75.00 mo.	Masters	Chinese	10	* \$1.00 day.
	Native	8	30.00 mo.	Workmen	do	10	* .50 day.
Foremen	White	8	50.00 mo.	do	10	* .25 day.	
Workmen	Native	8	.75 day.				
	do	8	.50 day.				
	Chinese	12	.50 day.				
	Native	8	.37½ day.				
	Chinese	12	* .37½ day.				
	Native	8	.25 day.				
	Chinese	8	.25 day.				
	do	12	* .25 day.				
	White	8	40.00 mo.	Masters	White	8	2.50 day.
	do	8	30.00 mo.		Native	8	2.00 day.
	Native	8	30.00 mo.		do	8	1.50 day.
	do	8	22.50 mo.		do	8	1.00 day.
	do	12	22.50 mo.		White	8	150.00 mo.
	do	8	20.00 mo.		do	8	100.00 mo.
	do	8	15.00 mo.		do	8	75.00 mo.
	do	12	15.00 mo.		do	8	50.00 mo.
	do	12	10.00 mo.		Native	8	50.00 mo.
	do	8	9.00 mo.		do	8	40.00 mo.
	do	8	7.50 mo.		do	8	25.00 mo.
	do	12	7.50 mo.		do	8	12½ day.
	Chinese	8	6.00 mo.		do	8	.10 day.
	Native	8	4.00 mo.		do	8	2.50 mo.
<i>Bakery (12 establishments).</i>				Box fillers	do	8	.37½ day.
Masters	White	12	b40.00 mo.		do	8	.25 day.
	do	12	b35.00 mo.		do	8	11.00 mo.
	do	12	b30.00 mo.		do	8	7.50 mo.
	Native	12	b15.00 mo.		do	8	.37½ day.
	Chinese	12	* b15.00 mo.		do	8	.25 day.
Workmen	Native	12	b 9.00 mo.		do	8	7.50 mo.
	do	12	b 8.00 mo.		do	8	.25 day.
	Chinese	12	* b 8.00 mo.		do	8	.25 day.
	Native	12	b 6.00 mo.		do	8	7.50 mo.
	do	12	b 5.00 mo.		do	8	.50 day.
	Chinese	12	* b 5.00 mo.		do	8	.50 day.
	Native	12	b 4.00 mo.		do	8	.37½ day.
	Chinese	12	* b 4.00 mo.		do	8	.25 day.
<i>Barber shop (42 establishments).</i>					do	8	15.00 mo.
Masters	White	10	1.00 day.		do	8	11.00 mo.
	Native	10	.50 day.		do	8	9.00 mo.
	Chinese	10	* .50 day.		do	8	7.50 mo.
	White	10	30.00 mo.		do	8	7.50 mo.
	Native	8	15.00 mo.		do	8	1.50 day.
	do	10	15.00 mo.		do	8	30.00 mo.
Workmen	do	10	.25 day.		do	8	1.50 day.
	Chinese	10	* .25 day.		do	8	75.00 mo.
	do	10	* 12½ day.		do	8	50.00 mo.
	White	10	15.00 mo.		do	8	40.00 mo.
	do	10	12.50 mo.		do	8	11.00 mo.
	Native	10	9.00 mo.		do	8	.37½ day.
	do	8	8.00 mo.		do	8	.25 day.
	do	10	7.50 mo.		do	8	.20 day.
<i>Bicycle repairing (4 establishments).</i>					do	8	.15 day.
Masters	White	8	2.00 day.		do	8	15.00 mo.
	do	8	1.50 day.		do	8	7.50 mo.
	Native	8	1.00 day.		do	8	1.50 day.
Apprentice	do	8	.12½ day.		do	8	15.00 mo.
Workmen	do	8	.50 day.		do	8	7.50 mo.
	do	8	.25 day.				
<i>Blacksmith and veterinary (1 establishment).</i>							
Master	White	8	40.00 mo.	Masters	White	8	50.00 mo.
Workmen	Native	8	15.00 mo.		do	8	45.00 mo.
	do	8	9.00 mo.		Native	8	.50 day.

* Also 3 meals and room.

b Also 3 meals.

Rates of wages in Manila, April and May, 1900—Continued.

Occupations.	Nation- ality.	Hours per day.	Rate of wages.	Occupations.	Nation- ality.	Hours per day.	Rate of wages.
<i>Cocoanut-oil factory (1 establishment).</i>				<i>Essence distillery (1 establishment).</i>			
Master	Native	8	\$50.00 mo.	Master	White	8	\$40.00 mo.
Workmen	do	8	20.00 mo.	Workmen	Native	8	15.00 mo.
do	do	8	15.00 mo.	do	do	8	7.50 mo.
do	do	8	11.00 mo.				
do	do	8	7.50 mo.				
Chinese	8	6.00 mo.					
<i>Comb making (1 estab- lishment).</i>				<i>Furniture factory (16 establishments).</i>			
Master	Chinese	10	*\$0.50 day.	Masters	Chinese	10	*.50 day.
Workmen	do	10	*.25 day.	do	do	10	25.00 mo.
<i>Confectionery (19 es- tablishments).</i>				do	do	10	22.50 mo.
Masters	Chinese	8	*.37½ day.	do	do	10	20.00 mo.
	White	8	*50.00 mo.	do	do	10	*17.50 mo.
	do	8	b 50.00 mo.	do	do	8	*15.00 mo.
	do	8	c 50.00 mo.	do	do	10	*15.00 mo.
	do	8	c 40.00 mo.	do	do	10	*2.00 mo.
	do	8	c 30.00 mo.	do	do	8	*3.00 mo.
	Native	8	17.50 mo.				
	do	8	15.00 mo.				
	do	8	*15.00 mo.				
Apprentice (child)	Chinese	8	*.10 day.				
Scullions	do	8	*.40 mo.				
	Native	8	*4.00 mo.				
	do	8	b 8.00 mo.				
	do	8	c 3.00 mo.				
Workmen	Chinese	8	*.25 day.				
	do	8	*.10 day.				
	do	8	*15.00 mo.				
	Native	8	*15.00 mo.				
	Chinese	8	*10.00 mo.				
	Native	8	9.00 mo.				
	do	8	c 9.00 mo.				
	do	8	8.00 mo.				
	do	8	*8.00 mo.				
	do	8	7.50 mo.				
	do	8	b 7.00 mo.				
	do	8	6.00 mo.				
	Chinese	8	*6.00 mo.				
	Native	8	b 6.00 mo.				
	do	8	c 6.00 mo.				
	do	8	4.00 mo.				
	do	8	*4.00 mo.				
	do	8	6.00 mo.				
Workwomen	do	8	*6.00 mo.				
<i>Copper foundry (3 es- tablishments).</i>				<i>Guitar factory (2 es- tablishments).</i>			
Masters	Chinese	10	*.50 day.	Masters	Native	8	1.00 day.
Workmen	do	10	*.25 day.	Workmen	do	8	.50 day.
do	do	10	*.12½ day.	do	do	8	*.37½ day.
<i>Dentist (4 establish- ments).</i>				do	do	8	.25 day.
Masters	White	8	4.00 day.				
	Native	8	4.00 day.				
	do	8	3.00 day.				
Workmen	do	8	1.00 day.				
	do	8	.75 day.				
	do	8	.50 day.				
<i>Electric-light plant (1 establishment).</i>							
Electrician	White	12	150.00 mo.				
Electrician, assistant	do	12	50.00 mo.				
Engineer	do	12	100.00 mo.				
Engineer, assistant	Native	12	40.00 mo.				
Workmen	do	12	22.50 mo.				
	do	12	15.00 mo.				
	do	12	11.00 mo.				
	do	12	8.00 mo.				
	do	12	6.00 mo.				
	do	12	5.00 mo.				

* Also 3 meals and room.

b Also 3 meals.

c Also 2 meal .

d Also meals and room.

Rates of wages in Manila, April and May, 1900—Continued.

Occupations.	Nation- ality.	Hours per day.	Rate of wages.	Occupations.	Nation- ality.	Hours per day.	Rate of wages.	
<i>Hat and parasol factory (1 establishment).</i>								
Master, hat department.	White	8	\$100.00 mo.	Polishers	Native	8	\$15.00 mo.	
Master, parasol department.	do	8	75.00 mo.	do	Chinese	10	*9.00 mo.	
Apprentices	Native ^b	8	4.00 mo.	Workmen	do	8	.25 day.	
Engineer	White	8	50.00 mo.	Native	8	12.50 mo.		
Workmen	do	8	40.00 mo.	do	8	11.00 mo.		
	do	8	30.00 mo.	do	8	7.50 mo.		
	Native	8	22.50 mo.	Chinese	8	7.50 mo.		
	do	8	19.00 mo.	do	10	*7.50 mo.		
Workwomen	do	8	15.00 mo.	do	8	6.00 mo.		
	do	8	22.50 mo.	<i>Iron works (14 establishments).</i>				
	do	8	15.00 mo.	Masters	Chinese	10	*1.00 day.	
	do	8	10.00 mo.	Apprentices (chil- dren)	do	10	*.07 ¹ ₂ day.	
	do	8	7.50 mo.	Blacksmiths	do	10	*.50 day.	
<i>Hat factory (7 establishments).</i>								
Masters	White	8	40.00 mo.	Blacksmiths' helpers	do	10	*.37 ¹ ₂ day.	
	Native	8	30.00 mo.	Workmen	do	10	*.25 day.	
	do	8	25.00 mo.	<i>Machine shop (1 establishment).</i>				
Workmen	do	8	.50 day.	Master	Native	8	1.50 day.	
	do	8	.37 ¹ ₂ day.	Workmen	do	8	.75 day.	
	do	8	.25 day.		do	8	.50 day.	
	do	8	15.00 mo.		do	8	.37 ¹ ₂ day.	
	do	8	10.00 mo.		do	8	.25 day.	
	do	8	8.00 mo.	<i>Marble works (2 establish- ments).</i>				
	do	8	7.50 mo.	Masters	White	8	1.50 day.	
	do	8	6.00 mo.		do	8	40.00 mo.	
	do	8	5.00 mo.	Workmen	Native	8	.75 day.	
Workwoman	do	8	4.00 mo.		do	8	.37 ¹ ₂ day.	
<i>Horseshoeing (5 establish- ments).</i>								
Masters	Native	8	1.00 day.		do	8	15.00 mo.	
Workmen	do	8	.50 day.		do	8	10.00 mo.	
	do	8	.37 ¹ ₂ day.	<i>Millinery (3 establish- ments).</i>				
	do	8	.25 day.	[All females.]	Mistresses	White	10	4.00 day.
<i>Ice factory (2 establish- ments).</i>					Native	10	2.00 day.	
Masters	White	8	100.00 mo.		do	10	.10 day.	
Engineers	do	8	62.50 mo.	Apprentices	do	10	.50 day.	
Engineers, assistant	Native	8	30.00 mo.	Workwomen	do	10	.25 day.	
Workmen	Chinese	8	.25 day.	<i>Perfume factory (1 es- tablishment).</i>				
	Native	8	15.00 mo.	Master	White	8	50.00 mo.	
	do	8	11.00 mo.	Workmen	Native	8	.50 day.	
	do	8	9.00 mo.	Workwomen	do	8	.25 day.	
<i>Iron foundry (4 establish- ments).</i>				<i>Printing (10 establish- ments).</i>				
Masters	White	8	75.00 mo.	Master	White	8	30.00 mo.	
	Native	8	50.00 mo.	Apprentices	Native	8	.12 ¹ ₂ day.	
	Chinese	10	*15.00 mo.		do	8	.10 day.	
Apprentices	do	8	.10 day.	Compositors	do	8	1.00 day.	
Blacksmiths	Native	8	3.00 mo.		do	8	.75 day.	
	Chinese	8	.37 ¹ ₂ day.		do	8	.62 ¹ ₂ day.	
	Native	8	15.00 mo.		do	8	.50 day.	
Blacksmiths' helpers	Chinese	10	*15.00 mo.		do	8	.37 ¹ ₂ day.	
	Native	8	10.00 mo.		do	8	.25 day.	
	Chinese	10	*9.00 mo.		do	8	.12 ¹ ₂ day.	
Engineers	Native	8	7.50 mo.		do	8	17.50 mo.	
	White	8	40.00 mo.		do	8	15.00 mo.	
	Native	8	30.00 mo.		do	8	12.50 mo.	
Filers	do	8	15.00 mo.		do	8	11.00 mo.	
Ladlers	Chinese	10	*7.50 mo.		do	8	9.00 mo.	
	do	8	.37 ¹ ₂ day.		do	8	6.00 mo.	
	do	8	11.00 mo.		do	8	1.00 day.	
Molders	do	10	*11.00 mo.	Engineers	do	8	.75 day.	
	do	8	.25 day.		do	8	62.50 mo.	
	Native	8	12.50 mo.		do	8	50.00 mo.	
	do	8	10.00 mo.		do	8	40.00 mo.	
	Chinese	8	10.00 mo.	Workmen	Native	8	.37 ¹ ₂ day.	
	do	10	*10.00 mo.					

* Also 3 meals and room.

^b Females.

Rates of wages in Manila, April and May, 1900—Continued.

Occupations.	Nation- ality.	Hours per day.	Rate of wages.	Occupations.	Nation- ality.	Hours per day.	Rate of wages.
<i>Printing (10 establish- ments)—Cont'd.</i>				<i>Silversmiths (29 estab- lishments)—Cont'd.</i>			
Workmen	Native	8	\$20.00 mo.	Masters	Native	8	\$1.00 day.
.....do.....	Native	8	18.00 mo.	.....do.....	White	8	50.00 mo.
.....do.....	Native	8	17.50 mo.	.....do.....	Native	8	30.00 mo.
.....do.....	Native	8	15.00 mo.	Apprentice .....	.....do.....	8	.25 day.
.....do.....	Native	8	7.50 mo.	Workmen .....	.....do.....	8	1.00 day.
Masters	White	8	150.00 mo.	.....do.....	.....do.....	8	.75 day.
Apprentices	Native	8	2.00 mo.	.....do.....	.....do.....	8	.50 day.
Compositors .....	.....do.....	8	22.50 mo.	.....do.....	.....do.....	8	.37 $\frac{1}{2}$ day.
.....do.....	.....do.....	8	15.00 mo.	.....do.....	.....do.....	8	.25 day.
.....do.....	.....do.....	8	10.00 mo.	.....do.....	.....do.....	8	22.50 mo.
.....do.....	.....do.....	8	7.50 mo.	.....do.....	.....do.....	8	15.00 mo.
Engineer .....	.....do.....	8	45.00 mo.	<i>Soap factory (22 estab- lishments).</i>			
Foremen .....	.....do.....	8	45.00 mo.	Masters	Native	8	.75 day.
Workmen .....	.....do.....	8	30.00 mo.	.....do.....	Chinese	10	.50 day.
.....do.....	.....do.....	8	25.00 mo.	.....do.....	White	8	62.50 mo.
.....do.....	.....do.....	8	15.00 mo.	Apprentices (chil- dren)	Chinese	10	.10 day.
.....do.....	.....do.....	8	7.50 mo.	.....do.....	.....do.....	10	.07 $\frac{1}{2}$ day.
.....do.....	.....do.....	8	6.00 mo.	Foreman	White	8	30.00 mo.
.....do.....	.....do.....	8	4.00 mo.	Workmen	Native	8	.37 $\frac{1}{2}$ day.
<i>Shirt factory (7 estab- lishments).</i>				.....do.....	Chinese	10	.25 day.
Masters	White	8	1.00 day.	.....do.....	Native	8	.25 day.
.....do.....	Native	8	22.50 mo.	.....do.....	Chinese	10	.15 day.
.....do.....	Native	8	20.00 mo.	.....do.....	Native	8	10.00 mo.
.....do.....	Native	8	17.50 mo.	.....do.....	Chinese	10	7.50 mo.
Workmen .....	.....do.....	8	.50 day.	.....do.....	Native	8	6.00 mo.
.....do.....	.....do.....	8	15.00 mo.	<i>Steam sawmill (1 es- tablishment).</i>			
.....do.....	.....do.....	8	12.50 mo.	Master	White	8	75.00 mo.
.....do.....	.....do.....	8	10.00 mo.	Engineer	Native	8	30.00 mo.
.....do.....	.....do.....	8	9.00 mo.	Workmen	White	8	30.00 mo.
.....do.....	.....do.....	8	6.00 mo.	.....do.....	Native	8	15.00 mo.
.....do.....	.....do.....	8	.25 day.	.....do.....	do	8	10.00 mo.
.....do.....	.....do.....	8	7.50 mo.	.....do.....	do	8	7.50 mo.
.....do.....	.....do.....	8	6.00 mo.	<i>Steel engraving (2 es- tablishments).</i>			
Workwomen .....	.....do.....	8	5.00 mo.	Masters	Native	8	1.00 day.
.....do.....	.....do.....	8	.10 day.	Workmen	do	8	.50 day.
<i>Shoe factory (31 estab- lishments).</i>				<i>Sugar refinery (1 es- tablishment).</i>			
Masters	White	8	1.50 day.	Master	White	8	75.00 mo.
.....do.....	Native	8	1.00 day.	Engineer	do	8	62.50 mo.
.....do.....	Native	8	.75 day.	Workmen	Native	8	30.00 mo.
.....do.....	Chinese	10	.50 day.	.....do.....	do	8	15.00 mo.
.....do.....	Chinese	10	.15 mo.	.....do.....	do	8	9.00 mo.
Apprentices .....	.....do.....	10	.10 day.	.....do.....	Chinese	8	7.50 mo.
Apprentices (chil- dren) .....	.....do.....	10	.20 mo.	<i>Tailor shop (97 es- tablishments).</i>			
.....do.....	.....do.....	10	.10 day.	Masters	Chinese	10	.50 day.
.....do.....	.....do.....	10	.07 $\frac{1}{2}$ day.	.....do.....	White	8	50.00 mo.
.....do.....	.....do.....	10	.20 mo.	.....do.....	Native	8	50.00 mo.
Workmen	Native	8	.50 day.	.....do.....	White	8	40.00 mo.
.....do.....	Chinese	10	.40 day.	.....do.....	Native	8	30.00 mo.
.....do.....	Native	8	.37 $\frac{1}{2}$ day.	.....do.....	do	8	22.50 mo.
.....do.....	Chinese	10	.37 $\frac{1}{2}$ day.	.....do.....	do	8	20.00 mo.
.....do.....	Native	10	.35 day.	.....do.....	do	8	17.50 mo.
.....do.....	Native	10	.30 day.	.....do.....	do	8	15.00 mo.
.....do.....	Native	8	.25 day.	.....do.....	Chinese	10	.15 mo.
.....do.....	Chinese	10	.25 day.	Apprentices	Native	8	3.00 mo.
.....do.....	Native	10	.20 day.	.....do.....	do	8	2.00 mo.
.....do.....	Native	10	.18 $\frac{1}{2}$ day.	Apprentices (chil- dren)	do	8	.12 $\frac{1}{2}$ day.
.....do.....	Native	10	.12 $\frac{1}{2}$ day.	.....do.....	do	8	3.00 mo.
.....do.....	Native	10	.10 mo.	.....do.....	do	8	2.00 mo.
.....do.....	Native	10	.09 mo.	.....do.....	Chinese	10	.20 mo.
.....do.....	Native	10	.08 mo.	Workmen	Native	8	.50 day.
.....do.....	Native	10	.07 mo.	.....do.....	do	8	.37 $\frac{1}{2}$ day.
.....do.....	Native	10	.06 mo.	.....do.....	do	8	.25 day.
.....do.....	Native	10	.05 mo.				
.....do.....	Native	10	.04 mo.				
.....do.....	Native	10	.03 mo.				
Workwomen	Native	10	.03 mo.				
.....do.....	Native	10	.03 mo.				
<i>Silversmiths (29 estab- lishments).</i>							
Masters	Native	8	2.00 day.				
.....do.....	Native	8	1.50 day.				

a Also 3 meals and room.

Rates of wages in Manila, April and May, 1900—Continued.

Occupations.	Nationality.	Hours per day.	Rate of wages.	Occupations.	Nationality.	Hours per day.	Rate of wages.
<i>Tailor shop (97 establishments)—Cont'd.</i>							
Workmen.....	Chinese ..	10	*\$0.25 day.			<i>Tin shop (24 establishments)—Cont'd.</i>	
	Native ..	8	12 $\frac{1}{4}$ day.	Apprentices (children).	Chinese ..	10	*\$2.00 mo.
	White ..	8	22.50 mo.	Workmen.....	do	10	*1.50 mo.
	Native ..	8	22.50 mo.		do	10	.75 day.
	do	8	20.00 mo.		Native ..	8	20.00 mo.
	do	8	17.50 mo.		do	8	15.00 mo.
	do	8	15.00 mo.		do	8	12.50 mo.
	do	8	12.50 mo.		do	8	10.00 mo.
	do	8	11.00 mo.		do	8	9.00 mo.
	do	8	10.00 mo.		Chinese ..	10	*9.00 mo.
	do	8	9.00 mo.		Native ..	8	8.00 mo.
	do	8	8.00 mo.		Chinese ..	10	*7.50 mo.
	do	8	7.50 mo.		Native ..	8	6.00 mo.
	do	8	7.00 mo.		Chinese ..	10	*6.00 mo.
	do	8	6.00 mo.		do	10	*5.00 mo.
	do	8	5.00 mo.		do	10	*4.00 mo.
	do	8	4.00 mo.	<i>Undertakers (3 establishments).</i>			
Women workers.....	do	8	.25 day.	Masters	Native ..	8	1.50 day.
	do	(b)	.25 day.	Coachmen	do	8	.75 day.
	do	8	.15 day.		do	8	.50 day.
	Chinese ..	10	*.15 day.		do	8	.37 $\frac{1}{2}$ day.
	Native ..	8	12 $\frac{1}{4}$ day.	Workmen	do	8	.25 day.
	do	(b)	12 $\frac{1}{4}$ day.		do	8	.25 day.
	Chinese ..	10	*.12 $\frac{1}{4}$ day.	<i>Watch making (6 establishments).</i>			
	Native ..	8	.10 day.	Masters	Native ..	8	1.00 day.
	do	10	.10 day.		White ..	8	40.00 mo.
	do	8	.07 $\frac{1}{2}$ day.		do	8	*40.00 mo.
	do	8	12.50 mo.		do	8	*30.00 mo.
	do	8	7.50 mo.	Apprentice.....	Native ..	8	.25 day.
	do	8	6.00 mo.	Workmen	do	8	.50 day.
	do	8	5.00 mo.		do	8	15.00 mo.
	do	8	4.00 mo.				
	do	8	3.00 mo.	<i>Wood, bone, and horn engraving (4 establishments).</i>			
Masters	White ..	8	2.00 day.	Masters	Chinese ..	8	*.50 day.
	Native ..	8	30.00 mo.		do	10	*.50 day.
	Chinese ..	10	*15.00 mo.		do	8	.25 day.
	do	10	*12.50 mo.	Workmen	do	10	.25 day.
Apprentices.....	do	10	*10.00 mo.		do	10	.25 day.
	Native ..	8	4.00 mo.				
	Chinese ..	10	*3.00 mo.				
	do	10	*2.00 mo.				

* Also 3 meals and room.

b Not reported.

c Also meal.

THE PRESS IN THE PHILIPPINES.

The Philippine press is divided into daily, weekly, or monthly issues, classified as follows: The American insular press, represented by several daily newspapers, the *MANILA TIMES*, the *MANILA FREEDOM*, and the *NEW AMERICAN*, printed in the English language. The Spanish Philippine press, having in common the language in which they are printed, but differing in political views and affiliations, according to the interests and views advocated. The following are the most important publications:

LA DEMOCRACIA, the organ of the Federal party.

EL COMERCIO, Spanish independent, a mercantile and news bulletin. It is the oldest newspaper in the Manila press.

EL RENACIMIENTO, Filipino.

EL PROGRESO, Spanish.

EL NOTICIERO DE MANILA, Spanish.

EL DIARIO DE FILIPINAS, the organ of the conservative party.

LA FRATERNIDAD, Filipino.

EL GRITO DEL PUEBLO, Filipino, printed in Spanish and Tagálo.

LIBERTAS, the organ of the religious orders.

All the foregoing are printed in Manila. Outside of the capital, two papers are issued in Cebú, EL NUEVO DÍA and EL PUEBLO, and two or three others in Iloílo.

There are also weekly or monthly publications. Several educational institutions and associations publish their leaflets or bulletins periodically.

In 1834 the publication of *LA GUIA DE FORASTEROS*, with interesting notices, supplemented the efforts of the Government to promote enterprise in the exploitation of the valuable mineral, lumber and other industries of the islands.

In 1852 the Official Bulletin of the Philippine Islands was established under the auspices of the provincial government. It may be said that the introduction of the printing press, although not the newspaper branch of that important industry, took place in the archipelago some years prior to its establishment in the colonies of North America.

The voluminous literature of the Philippine Islands in many languages will be found fully described, with selected list of authorities, under the head "Philippine Bibliography."

CUSTOMS SERVICE, PHILIPPINE ISLANDS.

[Ports of entry and ports for coastwise trade only—classification of ports.]

ENTRY PORT; a port at which a custom-house is located, a collector of customs is in charge, and duties are collected.

OPEN PORT; same as a port of entry.

INTERIOR PORT; one at which an inspector of customs has been assigned to duty, but at which no duties are collected.

LOCAL PORT; same as interior port.

EQUIPPED PORT; either an entry or interior port, or any port at which a customs official has been assigned to duty.

UNEQUIPPED PORT; one at which no customs official has been assigned to duty, at which no duties are collected, and at which no vessels are permitted to enter except by order of the military governor or district commander.

In this list the only ports referred to are entry and interior ports.

PORTS OF ENTRY.

MANILA, Luzón, August 20, 1898.

ILÓILO, Panay, February 22, 1899.

CEBÚ, Cebú, March 14, 1899.

JOLÓ (SULU),^a Sulu Archipelago, December 26, 1899.

SIASI,^a Sulu Archipelago, December 26, 1899.

ZAMBOANGA,^a Mindanao, December 26, 1899.

The six above-mentioned ports represented all of the entry ports in the Philippine Islands November 1, 1901.

The island of Guam is not considered in the Philippine service, as said port has never made any report to the Secretary of War.

^a No transactions are reported previous to January 1, 1900.

Philippine ports for coastwise trade only.^a

[On January 1, 1902, in addition to the 6 entry ports named 109 were interior ports, "for coastwise trade only."]

Name of port.	Province.	Island.	When opened.	Collection districts.
Agno	Zambales	Luzón	Nov. 8, 1900	Manila.
Albay	Albay	do	Jan. 27, 1900	
Argao	Cebú	Cebú	Nov. 4, 1900	Cebú.
Atimonan	Tayabas	do	June 10, 1900	Manila.
Aparri	Cagayán	do	Jan. 1, 1900	do.
Argao	Cebú	Cebú	Nov. 4, 1900	Cebú.
Bacolod	Negros Occidental	Negros	Nov., 1900	Iloilo.
Balamban	Cebú	Cebú	Feb. 4, 1900	Cebú.
Balayán*	Batangas	Luzón	June 1, 1900	Manila.
Basilan I.	Zamboanga	Mindanao	Dec. 26, 1899	Zamboanga.
Batangas*	Batangas	Luzón	Feb. 1, 1900	Manila.
Baybay	Leyte	Leyte	Feb. 22, 1900	Cebú.
Birac	Catanduanes	Catanduanes	See Virac...	
Boac	Marinduque	Marinduque	June 1, 1900	Manila.
Bogó	Cebú	Cebú	do	Cebú.
Bolinao	Zambales	Luzón	Apr. 7, 1900	Manila.
Bongao	Tawi-Tawi	Sulu Archipelago	Mar. 13, 1900	Zamboanga.
Bulan	Sorsogón	Luzón	Jan. 30, 1900	Manila.
Butuán	Mindanao	Mindanao	Apr. 6, 1901	Zamboanga.
Cabangán	Zambales	Luzón	Dec. 24, 1900	Manila.
Babalian	Leyte	Leyte	Aug. 20, 1901	Cebú.
Cagayán	Misamis	Mindanao	Apr. 3, 1900	Zamboanga.
Calbáyoc*	Sámar	Sámar	Jan. 30, 1900	Cebú.
Calívo	Cápit	Panay	Mar. 1, 1900	Iloilo.
Candón	Ilocos Sur	Luzón	Jan. 1, 1900	Manila.
Cápit	Cápit	Panay	Jan. 11, 1900	Iloilo.
Cárcar	Cebú	Cebú	Feb. 1, 1900	Cebú.
Carigara-Barugo	(Two ports)	Leyte	Mar. 5, 1900	do.
Carigara	Leyte	do	do	do.
Catbalogan*	Cavite	Sámar	Jan. 30, 1900	do.
Cavite	Cavite	Luzón	Mar. 16, 1899	Zamboanga.
Cotabato	Cotabato	Mindanao	Jan. 12, 1900	Palawan.
Culíón	Calamianes	Calamianes	June 9, 1901	Manila.
Currimao	Ilocos Norte	Luzón	Oct. 17, 1900	Palawan.
Cuyo	Cuyo	Cuyo group	June 9, 1901	Manila.
Dáet	Ambos Camarines	Luzón	Apr. 10, 1900	do.
Dagupan	Pangasinán	do	Jan. 1, 1900	do.
Dalaguete	Cebú	Cebú	May 15, 1901	Cebú.
Danao	do	do	Feb. 14, 1900	do.
Dapitan	Dapitan	Mindanao	Apr. 3, 1900	Zamboanga.
Dávao	Dávao	do	Jan. 12, 1900	do.
Donsol	Sorsogón	Luzón	Jan. 30, 1900	Manila.
Dumaguete	Negros Oriental	Negros	June 15, 1900	Iloilo.
Dumanjug	Cebú	Cebú	Mar. 12, 1900	Cebú.
Estancia	Iloilo	Panay	Feb. 17, 1902	Iloilo.
Gasán	Marinduque	Marinduque	May 16, 1901	Manila.
Gúbat	Sorsogón	Luzón	Feb. 14, 1900	do.
Guíuan*	Tayabas	Sámar	Dec. 24, 1900	Cebú.
Guinayañgan	Bohol	Luzón	Oct. 22, 1900	Manila.
Guindulman*	Leyte	Bohol	June 22, 1900	Cebú.
Hinunangan*	Zambales	Leyte	Aug. 20, 1901	do.
Iba	Zambales	Luzón	Feb. 1, 1900	Manila.
Ibajay	Cápit	Panay	June 19, 1900	Iloilo.
Iligán	Misamis	Mindanao	Apr. 3, 1900	Zamboanga.
Inabanga*	Bohol	Bohol	June 22, 1900	Cebú.
Isabela	Basilan	Basilan	Apr. 1, 1900	Zamboanga.
Jagná*	Bohol	Bohol	Apr. 5, 1900	Cebú.
Jimamaylan	Negros Occidental	Negros	Feb. 17, 1902	Iloilo.
Jiménez*	Misamis	Mindanao	Jan. 3, 1901	Zamboanga.
Laoag	Ilocos Norte	Luzón	Jan. 1, 1900	Manila.
Lagúan*	Samar	Luzón	Feb. 20, 1900	Cebú.
Legaspi	Albay	do	Jan. 30, 1900	Manila.
Lemery*	Batangas	do	Feb. 20, 1900	do.
Lobó*	do	do	Nov. 16, 1900	do.
Lucap	Zambales	do	Jan. 14, 1901	do.
Lucena	Tayabas	do	May 22, 1900	do.
Maasin	Leyte	Leyte	July 7, 1900	Cebú.
Malitbog	do	do	Aug. 20, 1901 ^b	Leyte.
Masinloc	Zambales	Luzón	Apr. 7, 1900	Manila.
Matí	Dávao	Mindanao	Mar. 13, 1900	Zamboanga.
Matnog	Sorsogón	Luzón	Apr. 4, 1901	Manila.
Maubán	Tayabas	do	Apr. 10, 1900	do.

^a By act of the Philippine Commission July 17, 1901, the provinces of Batangas, Bohol, and Cebú were restored to military government. On January 1, 1902, Cebú, and on April 7, 1902, Bohol, ports were restored to coastwise trade. Under General Orders 372, Division of the Philippines, Manila, Series 1901 (December 3), ports in Batangas and Laguna were closed to trade on December 10 until further orders. May 1, 1902, ports of Batangas and Laguna, Luzon, and island of Mindoro opened for resumption of trade. The ports of Sámar were also closed on account of military operations in that island. Reopened May, 1902.

^b Opened February 2, 1900. Closed June 10, 1900. Reopened as above.

Philippine ports for coasting trade only—Continued.

Name of port.	Province.	Island.	When opened.	Collection districts.
Misamis.	Misamis.	Mindanao.	Apr. 3, 1900	Zamboanga.
Naga.	Cebú.	Cebú.	Feb. 4, 1900	Cebú.
Nasugbú.	Batangas.	Luzón.	Dec. 17, 1900	Manila.
Nueva Cáceres.	Ambos Camarines.	do.	Feb. 28, 1900	Do.
Olongapó.	Zambales.	do.	Nov. 27, 1900	Do.
Orani.	Bataán.	do.	Jan. 1, 1900	Do.
Oroquieta.	Misamis.	Mindanao.	Aug. 17, 1900	Zamboanga.
Ormoc.	Leyte.	Leyte.	Feb. 22, 1900	Cebú.
Palánog.	Masbate.	Masbate.	June 1, 1900	Iloilo.
Palauig.	Zambales.	Luzón.	Feb. 21, 1901	Manila.
Palompón.	Leyte.	Leyte.	July 7, 1900	Cebú.
Pasacao.	Ambos Camarines.	Luzón.	Feb. 28, 1900	Manila.
Polloc.	Cotabato.	Mindanao.	Dec. 6, 1900	Zamboanga.
Puerto Princesa.	Palawan.	Palawan.	June 9, 1901	Palawan.
Romblón.	Romblón.	Romblón.	Jan. 10, 1900	Iloilo.
Salomague.	Ilocos Norte.	Luzón.	Aug. 6, 1900	Manila.
San Antonio.	Zambales.	do.	May 2, 1901	Do.
San Carlos.	Negros Occidental.	Negros.	Feb. 17, 1902	Iloilo.
San Felipe.	do.	Luzón.	June 1, 1900	Do.
San Fernando.	Unión.	do.	Jan. 1, 1900	Do.
San Narciso.	Zambales.	do.	May 2, 1901	Do.
Santa Cruz.	do.	do.	Feb. 1, 1900	Do.
Santa Cruz de Napo.	Marinduque.	Marinduque.	Jan. 26, 1900	Do.
San José de Lagonyo.	Ambos Camarines.	Luzón.	July 14, 1900	Do.
San José de Buena Vista.	Antique.	Panay.	Feb. 1, 1900	Iloilo.
Sibonga.	Cebú.	Cebú.	Feb. 4, 1900	Cebú.
Silay.	Negros Occidental.	Negros.	June 1, 1900	Iloilo.
Sorsogón.	Sorsogón.	Luzón.	Jan. 30, 1900	Manila.
Sual.	Pangasinán.	do.	Apr. 7, 1900	Do.
Súbig.	Zambales.	do.	Feb. 1, 1900	Do.
Surigao.	Surigao.	Mindanao.	Apr. 3, 1900	Zamboanga.
Taal ^a .	Batangas.	Luzón.	Feb. 1, 1900	Manila.
Tabaco.	Albay.	do.	Feb. 14, 1900	Do.
Tacloban.	Leyte.	Leyte.	Jan. 30, 1900	Cebú.
Tagbilaran ^a .	Bohol.	Bohol.	Mar. 22, 1900	Do.
Torrijos.	Marinduque.	Marinduque.	May 16, 1901	Manila.
Tubigón ^a .	Bohol.	Bohol.	Apr. 5, 1900	Cebú.
Ubay ^a .	do.	do.	June 22, 1900	Do.
Vigan.	Ilocos Sur.	Luzón.	Jan. 1, 1900	Manila.
Virac (Birac).	Catanduanes.	Catanduanes.	Jan. 30, 1900	Do.

List of ports of entry and ports open to coastwise trade only, by collection districts, in the Philippine Islands.

[Ports of entry and collection: Cebú, embracing the islands of Cebú, Leyte, Sámar, and Bohol; Iloilo, embracing the islands of Negros, Panay, Masbate, and Romblón; Manila, embracing the islands of Luzón, Marinduque, Catanduanes; Palawan, embracing the islands of the Calamianes, Cuyos, and Palawan; Zamboanga, embracing the islands of Basilan, Mindanao, and Sulu Archipelago, except Sulu and Siasi ports of entry.]

Name of port.	Province.	Island.	When opened.
CEBÚ.			
Argao.	Cebú.	Cebú.	Nov. 4, 1900
Balamán.	do.	do.	Feb. 4, 1900
Baybay.	Leyte.	Leyte.	Feb. 22, 1900
Bogó.	Cebú.	Cebú.	June 1, 1900
Cabalian.	Leyte.	Leyte.	Aug. 20, 1901
Calbáyog ^a .	Cebú.	Sámar.	Jan. 30, 1900
Cárcar.	Cebú.	Cebú.	Feb. 1, 1900
Carigara-Barugo.	Two ports.	Leyte.	Mar. 5, 1900
Catbalogan ^a .	Cebú.	Sámar.	Jan. 30, 1900
Dalaguete.	Cebú.	Cebú.	May 15, 1901
Danao.	do.	do.	Feb. 14, 1900
Dumanjug.	do.	do.	Mar. 12, 1900
Guiuan ^a .	Bohol.	Sámar.	Dec. 24, 1900
Guindulman ^a .	Bohol.	Bohol.	June 22, 1900
Hinunangan.	Leyte.	Leyte.	Aug. 20, 1901
Inabanga ^a .	Bohol.	Bohol.	June 22, 1900
Jagná ^a .	do.	do.	Apr. 5, 1900
Lagúan ^a .	Bohol.	Sámar.	Feb. 20, 1900
Maasin.	Leyte.	Leyte.	July 7, 1900
Malitbog ^b .	do.	do.	Aug. 20, 1901
Naga.	Cebú.	Cebú.	Feb. 4, 1900

^a Closed until further orders. See footnote (*), p. 106. May 1, 1902, ports of Batangas and Laguna, Luzón, and island of Mindoro opened for resumption of trade. Ports of Sámar were reopened May, 1902.

^b This port opened February 12, 1900. Closed June 10, 1900. Reopened as above.

List of ports of entry and ports open to coastwise trade only, etc.—Continued.

Name of port.	Province.	Island.	When opened.
Ormoc	Leyte	Leyte	Feb. 22, 1900
Palompón	do	do	July 7, 1900
Sibonga	Cebú	Cebú	Feb. 4, 1900
Tacloban	Leyte	Leyte	Jan. 30, 1900
Tagbiliran*	Bohol	Bohol	Mar. 22, 1900
Tubigón*	do	do	Apr. 5, 1900
Cá bay*	do	do	June 22, 1900
ILOILO.			
Bacolod	Negros Occidental	Negros	Nov., 1900
Culivo	Cá píz	Panay	Mar. 1, 1900
Cá píz	do	do	Jan. 11, 1900
Dumaguete	Negros Oriental	Negros	June 15, 1900
Estancia	Iloílo	Panay	Feb. 17, 1902
Ibañay	Cá píz	do	June 19, 1900
Jimáinaylan	Negros Occidental	Negros	Feb. 17, 1902
Puláinog	Masbate	Masbate	June 1, 1900
Romblón	Romblón	Romblón	Jan. 10, 1900
San Carlos	Negros Occidental	Negros	Feb. 17, 1902
San José de Buena Vista	Antique	Panay	Feb. 1, 1900
Silay	Negros Occidental	Negros	June 1, 1900
MANILA.			
Agno	Zambales	Luzón	Nov. 8, 1900
Albay	Albay	do	Jan. 27, 1900
Atimonan	Tayabas	do	June 10, 1900
Aparri	Cagayán	do	Jan. 1, 1900
Balayán*	Batangas	do	June 1, 1900
Bataángas*	do	do	Feb. 1, 1900
Boac	Marinduque	Marinduque	June 1, 1900
Bolímao	Zambales	Luzón	Apr. 7, 1900
Bulan	Sorsogón	do	Jan. 30, 1900
Cabañigán	Zambales	do	Dee. 24, 1900
Caudón	Iloíos Sur	do	Jan. 1, 1900
Cavite	Cavite	do	Mar. 16, 1899
Currimao	Iloíos Norte	do	Oet. 17, 1900
Dáet	Ambos Camarines	do	Apr. 10, 1900
Dagupan	Pangasinán	do	Jan. 1, 1900
Domsol	Sorsogón	do	Jan. 30, 1900
Gasán	Marinduque	Marinduque	May 16, 1901
Gíbat	Sorsogón	Luzón	Feb. 14, 1900
Guinayañgan	Tayabas	do	Oct. 22, 1900
Iba	Zambales	do	Feb. 1, 1900
Laong	Iloíos Norte	do	Jan. 1, 1900
Legaspi	Albay	do	Jan. 30, 1900
Lemery*	Batangas	do	Feb. 20, 1900
Lobóo*	do	do	Nov. 16, 1900
Lucap	Zambales	do	Jan. 14, 1901
Lucena	Tayabas	do	May 22, 1900
Masinloc	Zambales	do	Apr. 7, 1900
Matnog	Sorsogón	do	Apr. 4, 1901
Maubán	Tayabas	do	Apr. 10, 1900
Nasugbut*	Batangas	do	Dee. 17, 1900
Nueva Cáceres	Ambos Camarines	do	Feb. 28, 1900
Olongapó	Zambales	do	Nov. 27, 1900
Orani	Bataán	do	Jan. 1, 1900
Paláuig	Zambales	do	Feb. 21, 1900
Pasacao	Ambos Camarines	do	Feb. 28, 1900
Salomague	Iloíos Norte	do	Aug. 6, 1900
San Antonio	Zambales	do	May 2, 1901
San Felipe	do	do	June 1, 1900
San Fernando	Union	do	Jan. 1, 1900
San Narciso	Zambales	do	May 2, 1901
Santa Cruz	do	do	Feb. 1, 1900
Santa Cruz de Napo	Marinduque	Marinduque	Jan. 26, 1900
San José de Lagunoy	Ambos Camarines	Luzón	July 14, 1900
Sorsogón	Sorsogón	do	Jan. 30, 1900
Sual	Pangasinán	do	Apr. 7, 1900
Súbig	Zambales	do	Feb. 1, 1900
Taal*	Batangas	do	Do.
Tabaco	Albay	do	Feb. 14, 1900
Torrijos	Marinduque	Marinduque	May 16, 1901
Vigan	Iloíos Sur	Luzón	June 1, 1900
Virac (Birae)	Albay	Catanduanes	Jan. 30, 1900
PALAWAN.			
Culián	Calamianes	Calamianes	June 9 1901
Cuyo	Cuyo	Cuyo group	Do.
Puerto Princesa	Palawan	Palawan	Do

* See footnote, p. 106.

List of ports of entry and ports open to coastwise trade only, etc.—Continued.

Name of port.	Province.	Island.	When opened.
ZAMBOANGA.			
Bongao	Tawi-Tawi	Sulu Archipelago	Mar. 13, 1900
Butuan	Surigao	Mindanao	Apr. 6, 1901
Cagayan	Misamis	do	Apr. 3, 1900
Cotabato	Cotabato	do	Jan. 12, 1900
Dapitan	Dapitan	do	Apr. 3, 1900
Davao	Dávao	do	Jan. 12, 1900
Iligan	Misamis	do	Apr. 3, 1900
Isabela de Basilan	Basilan	Basilan	Apr. 1, 1900
Jiménez	Misamis	Mindanao	Jan. 3, 1901
Mati	Dávao	do	Mar. 13, 1900
Misamis	Misamis	do	Apr. 3, 1900
Oroquieta	do	do	Aug. 17, 1900
Polloc	Cotabato	do	Dec. 6, 1900
Surigao	Surigao	do	Apr. 3, 1900

LIGHT-HOUSEES.

The shores along the routes of commerce and at the entrances to the great harbors of the archipelago open to entry or coastwise trade have been brought under the Light-House Service of the National Government. The number and class of lights is being extended to keep pace with the expansion of maritime and interisland intercourse.

LOCATION OF LIGHTS AND WATERS LIGHTED.

[For technical description see island or province of location.]

BALÁBAC ISLAND; on the point S. side of entrance to Calandorang Bay, for vessels entering or leaving the Sulu Sea by Balábac Strait. One fixed light.

Cape Melville, on the hill near and NW. of the cape S. end of Balábac Island, for vessels passing between the China and Sulu seas by Balábac Strait, between the island of that name and Borneo. Light, 1 flash every 20 seconds.

BURIAS ISLAND:

Busuanga Port, **Piedras Point**, NE. coast of Burias Island, lighting entrance to Ragay Gulf, S. coast of Luzón, between Ambos Camarines and Tayabas. Light, fixed blue.

Busín Islet, off the N. coast of Burias Island, at W. entrance to Port Busín, and lights the channel between Burias Island and S. point of Tayabas province, between Ragay Gulf and Mindoro Sea. Light, 1 fixed.

Colorado Point, NW. coast Burias Island, lighting channel between Burias and Tayabas, Luzón, and the channel between Ragay Gulf and Mindoro Sea. Light, 1 fixed.

Engaño Mouth, SE. coast of Burias Island, lighting approach to San Bernardino Strait to the E. and toward the Verde Passage to the W. Light, 1 fixed.

Malaguinc-Ílog, S. end of Burias Island, lighting the approach to San Bernardino Strait on the E. Light, 1 fixed blue.

CABRA ISLAND, about 656 yds. from the sea, near the W. point of the island, off the NW. point of Lúbang Island. It is the outer light of approach to Manila Bay from the SW., and the light to the W. end of Verde Passage between Luzón and Mindoro and connecting the China and Mindoro seas. Light, 1 flash; every minute shows 2 flashes, each of 8 seconds' duration, separated by an interval of 7 seconds, the group being separated by an interval of 37 seconds.

CAPUL ISLAND, on the N. point of the island of that name, 165 yds. from its extremity. It lights the W. entrance to San Bernardino Strait between Sámar and Luzón, and the S. route from the Pacific Ocean across Mindoro Sea to Manila, via the Verde Passage. Light, 1 fixed.

CEBÚ ISLAND:

Bagácai Point, E. side of Cebú Island, lighting the NE. entrance to the port of Cebú between Mactan Island and the mainland. Light, 1 fixed.

Cebú port, on Mactan Island. Light, 1 fixed red.

Cebú port, San Nicolás Church tower, 60 ft. high. Light, 1 fixed.

Cebú port, on Port Cebú, at the SE. salient of the fort (San Pedro). Light, 1 fixed red.

Land Point, approach to Cebú port, 36 ft. above the water. Light, 1 fixed green.

Lipata Bank, at the entrance to Port Cebú, 42 ft. above the sea. Light, 1 fixed red.

LEYTE ISLAND:

Canduay (Canamay) Islet, S. side of Janabatás Channel, W. entrance between Sámar and Leyte, and connecting Cariaga Bay, on the Visaya Sea, with San Pedro and San Pablo Bay, on the Pacific side. Light, 1 fixed red.

Tacloban, on Panirugan Point, E. coast, entering Juanico Strait from San Pedro Bay SE. Light, 1 fixed red.

LUZÓN ISLAND:

Aparri, NW. from and at the mouth of the Grande de Cagayán River, about 278 yds. from the sea, 1,684 yds. from the l. bank of the river, on the N. coast of Luzón, between Engaño Cape on the E. and Bojeador Cape on the W. Light, 1 flash every second.

Bojeador Cape, on the summit of a hill 1,750 yds. E. of the NW. extreme of the cape at the extreme NW. point of Luzón. It is the most W. of the lights on the N. coast of the island, and in the approach of vessels from the China coast on the NW. Light, 1 flash every minute.

Capones Grande, 328 yds. within the W. extremity of the island. Light, 1 flash every 30 seconds; eclipse total. Lights the approach to Súbig and Manila bays from the NW.

Dagupan, S. shore of Lingayén Gulf, Pangasinán Province, NE. side of Dagupan River, entrance on Point Guecet. Light, 1 fixed red. Lights the approach to Dagupan, the N. terminus of the Manila and Dagupan Railroad.

Engaño Cape, on the extreme N. point of Palaui Island, on the summit of a hill at the northeastermost point which forms the cape. Light, 1 flash every 30 seconds; 2 flashes in succession. It lights the approach from the Pacific to the extreme NE. point of Luzón, and the channel between the Babuyanes Islands and the mainland. It is the easternmost of the lights on the N. coast of Luzón.

Malabriga Point, on the S. coast of Batangas, on the N. shore of the Verde Passage separating Luzón from Mindoro, on the steamer route between that passage and San Bernardino Strait, the S. route between the Pacific Ocean and the China Sea on the voyage from the United States to Manila. Light, 1 flash white and red; 1 red and 2 white flashes every 20 seconds; time between white flashes, 3 seconds; from white to red flash, 8 seconds; from red to white flash, 9 seconds.

MANILA BAY:

Caballo Island, lighting the S. channel of entrance to Manila Bay between Cavite and Corregidor. Light, 1 fixed.

Corregidor Island, on the highest part, and lighting the approach to the bay from the China Sea. Light, 1 flash white and red; alternate flashes every 10 seconds separated by total eclipses.

Corregidor Island, W. mole head. Light, 1 fixed.

Manila, on the battery S. side of quay, mouth of Pásig River. Light, 2 fixed electric, horizontal, and 3 ft. apart.

Manila, W. mole. Light, 1 fixed red.

Pásig River, mouth of, on the N. side of quay. Light, 1 fixed red.

San Nicolás Banks, in Manila Bay, on the NW. head of the NW. of the 2 shoals which form the bank. Light, 1 flash every minute; flash 20 seconds, eclipse 40 seconds; electric.

Sangley Point, light at the extremity of the W. head to Cavite Bay. Light, 1 fixed red.

Santiago, about 66 yds. N. of S. extreme of the cape on the W. head of Balayán Bay, S. shore of Batangas, and lights the Verde Passage between Luzón and Mindoro W. entrance. It is one of the principal lights of approach to Manila Bay from the San Bernardino or S. route across the islands. Light, 1 flash every 36 seconds, 3 flashes in succession; flash 4 seconds, eclipse 2 seconds; flash 4 seconds, eclipse 2 seconds; flash 4 seconds, eclipse 20 seconds.

San Fernando, S. point of entrance to that port, E. head to Lingayén Gulf, and one of the lights on the Western or China Sea, coast of N. Luzón, in Unión Province. Light, 1 fixed red. On January 1, 1902, changed to 1 fixed white (N. to W.); also range lights established.

Sual port, Portuguese Point, in the SW. angle of Lingayén Gulf. Light, 1 fixed red.

MASBATE ISLAND, Bugui Point, on the highest part, about 190 yds. E. from its extremity. At the extreme N. point of Masbate Island, and lighting the channel between that island and Burias and Ticao islands on the N. side of the channel leading to San Bernardino Strait. Light, 1 flash white and red alternately every 30 seconds.

MINDANAO ISLAND:

Dapitan Bay, Tubud Point, the S. head of the channel between Mindanao and Negros, and connecting the Mindanao and Sulu seas. Light, 1 flash red.

Dávao Port, N. point of entrance to Dávao River, lighting the channel of Pasiputan Strait between Sámal I. and the mainland on the W. shore of Dávao Bay. Light, 1 fixed red.

Glan (Glan Masilá) River, S. side of river entrance on Canalasan Cove, near the E. head to Sarangani Bay, S. coast. Light, 1 fixed.

Mati, on the pier at the head of Pujada Bay, Dávao, E. coast of Mindanao. Lights, 2 fixed red.

Oroquieta, in front of the municipal building on the W. shore of Iligan Bay. Light, 1 fixed red.

Párong Párong, Polloc or Palac Harbor, on the mole heads E. shore of Illana Bay, Cotabato Province. Lights, 1 fixed red, 1 fixed green.

Zamboanga, on the extremity of the mole, S. point, and lights Basilan Strait between Mindanao and Basilan Island and the connecting channel between Sulu and the Celebes seas. Light, 1 fixed red.

PALAWAN (PARAGUA).

Port Royalist (Puerto Princesa). Tide pole point. Lights the Sulu Sea passage along the E. coast of Palawan between Balábac and Mindoro straits. Light, 1 fixed.

Port Royalist (Puerto Princesa), Obando Mole. Light, 1 fixed.

PANAY ISLAND:

Calabazas, S. extremity of the E. islet. At the N. entrance to Iloílo Strait between Panay and Negros. Light, 1 flash every 15 seconds; 3 flashes in quick succession; eclipses total.

Guimarás Island, SW. extremity $4\frac{1}{2}$ m. N. $24^{\circ} 30'$ W., from Point Lasaran. The E. head to the S. entrance to Iloílo Strait between Guimarás and Panay Islands. Light, 1 flash white and red every 15 seconds; group of 3 white flashes followed by 1 red flash.

Iloílo (Siete Pecados), at the N. entrance of the narrow channel of Iloílo Strait between Guimarás and Panay Islands, and leading to Iloílo Harbor. Light, 1 fixed with red sector.

Iloílo, right point of entrance to Iloílo River. Light, 1 fixed red.

Manigón Islet, off the NE. extremity of Panay, lighting the channel in the Visayan Sea between that point and the extreme SW. point of Masbate. Light, 1 flash every 5 seconds.

North Gigante Island, on the most salient point of the N. extremity and lights the channel in the Visayan Sea between the NE. point of Panay and the S. coast of Masbate. Light, 1 flash white and red; every 15 seconds 3 white flashes, followed by 1 red flash.

ROMBLÓN ISLAND:

Off *Agbatán*, beacon near Sabang Point. Light, 1 fixed.

Off *Binagón Point*, beacon. Light, 1 fixed.

Sabang Point, N. entrance. Light, 1 fixed.

Off *Sabang Beacon*. Light, 1 fixed.

Off *Rosas Point*, beacon. Light, 1 fixed.

SÁMAR ISLAND:

Calbáyoc, W. coast at N. end of town near the outpost. Light, 1 fixed red. Lights the approach to Janabatás Channel.

Catbalogan, W. coast, on army headquarters building. Light, 1 fixed red. Approach to Janabatás Channel on the N.

SAN BERNARDINO, on the summit of an islet in the E. entrance to San Bernardino Strait, the first light of approach to the S. route to the island from the Pacific to Manila. Light, 1 flash white and red, alternating every 30 seconds; white flash 1 second, eclipse 14 seconds; red flash 1 second, eclipse 14 seconds.

SULU ARCHIPELAGO:

Siasi Island, shown at an elevation of 20 ft. from framework, near the end of the wharf of Siasi. Lights the Celebes seacoast of Sulu Archipelago and approach to Tapaan interisland passage to Sulu Sea. Light, harbor, red.

WEATHER SERVICE.

A weather bureau for the islands was established by act (P. C., No. 131) May 22, 1901, with stations at Aparri (Cagayán), Baguió (Benguet), Dagupan (Pangasinán), San Fernando (Unión), and San Isidro (Nueva

Ecija), in Luzón; Cápiz (Cápiz), Cebú (Cebú), and Iloílo (Iloílo), in Panay; Maasin, Ormoc, and Tacloban, in Leyte; Tagbilaran, in Bohol, in the Vasayas and Butúan, and Surigao (Surigao), Mindanao, with central office at Manila. The Philippine Islands are known to navigators as the "breeding ground" of typhoons. The establishment of forecasts and warnings on the Chinese, Formosa, and Japanese coasts is, therefore, of value to commerce.

COMMERCE OF THE PHILIPPINE ISLANDS.

"The United States will for the term of ten years from the date of the exchange of the ratifications of the present treaty, admit Spanish ships and merchandise to the ports of the Philippine Islands on the same terms as ships and merchandise of the United States." [Article IV, Treaty of Paris.]

Customs.—The custom-house at Manila was opened for business by the United States military government August 20, 1898. The Spanish tariff and customs regulations found in force were continued. In anticipation of the occupation of Manila, a translation of the Spanish tariff, with some modifications, had been prepared in Washington prior to the arrival of the troops, and by order of the President, dated July 13, 1898, directions were given to proclaim and enforce the tariff in the islands as soon as the United States forces obtained possession. This tariff and the accompanying orders were received at Manila in September, after the custom-house had been in operation for some weeks. It was at once published, to take effect October 1, 1898. The proclamation of this new tariff, and the short notice given of the change, caused many protests, petitions, and requests from merchants and other persons doing business in Manila, for which reason it was decided by the military governor that to put it into effect at once would derange trade and prejudice American interests. Its enforcement was therefore postponed.

The following G. O., No. 10, Manila, P. I., October 26, 1898, was accordingly issued from the office of the military governor in the Philippine Islands:

"Referring to general orders of the 29th ultimo from this office, wherein is recited the necessity of a careful revision of the 'Customs Tariff and Regulations' prescribed by the United States Government for such portion of the Philippine Islands as may be under United States control, and in order to satisfy United States Government interests and prevailing business conditions, and proclaiming, for such reasons, the postponement of the practical application of those tariff regulations until November 10 next, it is hereby ordered that the same, amended and revised, and as now fully contained in the following printed schedule, be put in force from and after the date proclaimed, viz, November 10, 1898.

"Upon the occupation of any ports or places in the Philippine Islands by the forces of the United States, the foregoing order will be proclaimed and enforced."

Also "Regulations for the guidance of officers concerned in the collection of duties on imports and exports, taxes, and other charges and exactions to be levied and collected as a military contribution at ports and places in the possession of or under the control of the forces of the United States in the Philippine Islands," under the following subdivisions:

Entrance and clearance of vessels.

Light dues.

Entry of merchandise.

Wharf charges.

Harbor and commercial improvement charges.

Rates of duties on imports under classes and groups.

Export duties.

Articles free of duty.

Articles free of duty subject to the formalities determined for each case by the customs regulations.

Articles free of duty subject to conditions stated.

Goods not specially classed in the tariff.

Packages and recipients.

Tare allowance.

Reimportation of national products.

Articles prohibited.

Miscellaneous provisions.

Tariff.—A revision of the tariff and regulations was begun in June, 1900, by a board of officers appointed by the military governor under instructions from the War Department. By order of the Secretary of War this board reported to the United States Philippine Commission on August 25, 1900, who then formally took up the subject of tariff revision, their labors resulting in the enactment, on September 17, 1901, “by the authority of the President of the United States, and with the approval of the Secretary of War first had,” of the following act (No. 230) to revise and amend the tariff laws of the Philippine Archipelago, providing—

SHORT TITLE.—SEC. 1. The provisions of General Order, No. 49, Office of the United States military governor in the Philippine Islands, dated October 23, 1899, relating to customs duties on imports and exports of the Philippine Islands, and tonnage duties and wharf charges therein, and the several orders supplemental thereto and amendatory thereof, are hereby amended to read as follows:

IMPORT DUTIES.—SEC. 2. Duties shall be collected on all articles, goods, and merchandise imported into the Philippine Islands at the rates hereinafter provided, except when expressly exempted from duty by this act.

PROVISION FOR MERCHANDISE IN TRANSIT.—SEC. 3. Merchandise in transit at the time the present revision goes into effect may be entered under the provisions of law existing at the time of shipment; provided, however, that this privilege shall not be extended beyond the period of sixty days after the date of the enforcement of the present tariff of duties and taxes.

EXPORT DUTIES.—SEC. 4. Duties shall be collected at the rates hereinafter provided on such articles, goods, and merchandise exported from the Philippine Islands as are hereinafter specifically prescribed in this act.

GENERAL RULES.—SEC. 5. The following rules and regulations shall be observed in the construction and enforcement of the various provisions of this act: [The general rules are then given in detail in this act.]

PROHIBITED IMPORTATIONS.—SEC. 6. Explosives, arms, etc., except by authority; obscene literature and gambling devices.

ABBREVIATIONS.—SEC. 7. The following abbreviations shall be employed in the tariff:

G. W. = gross weight.	Kilo. = kilogram.
N. W. = net weight.	Kilos. = kilograms.
Hectog. = hectogram.	Hectol. = hectoliter.

HOW PAYABLE.—SEC. 8. Duties shall be paid in United States money except that—

The following coins now in circulation in the Philippine Islands shall be received for customs duties and taxes at the following rates in money of the United States: Peso, 50 cents; medio peso, 25 cents; peseta, 10 cents; media peseta, 5 cents; but such rates shall be changed in accordance with a quarterly proclamation of the civil governor.

METRICAL SYSTEM.—SEC. 9. The metrical system of weights and measures as authorized by sections 3569 and 3570 of the Revised Statutes of the United States, and at present in use in the Philippine Islands, shall be continued.

The meter is equal to 39.37 inches.

The liter is equal to 1.0567 quarts, wine measure.

The kilogram is equal to 2.2046 pounds avoirdupois.

IMPORTATIONS FROM THE UNITED STATES.—SEC. 10. Importations from the United States are dutiable under the provisions of this act, but no customs duties shall be imposed on articles, goods, or merchandise transported only from one place or port to another place or port in the Philippine Islands.

RATES.—SEC. 11.—The rates of duties to be collected on articles, goods, and merchandise imported into the Philippine Islands shall be as follows:

Thirteen classes following the usual classification in the United States schedules.

FREE.—SEC. 12. Free list.

EXPORT DUTIES.—SEC. 13. On the following products of the Philippine Islands, when exported therefrom, there shall be levied and collected, on the gross weight thereof, export duties as follows:

398. Abáca, raw or wrought hemp.....	100 kilos..	\$ 0.75
399. Indigo	do.....	.25
400. Indigo employed for dyeing (“tintarron”)	do.....	.025
401. Rice	do.....	1.00
402. Sugar	do.....	.05
403. Coconuts, fresh and dried (copra).....	do.....	.10
404. Tobacco, manufactured, of all kinds and whatever origin.....	do.....	1.50
405. Tobacco, raw, grown in the provinces of Cagayán, Isabela, and New Biscay (Luzon Islands)	100 kilos..	1.50
406. Tobacco, raw, grown in the Visayas and Mindanao Island.....	do.....	1.00
407. Tobacco, raw, grown in other provinces of the archipelago.....	do.....	.75

Certificates of origin of raw tobacco may be required by the customs authorities when proof of the place of production is necessary.

TONNAGE.—SEC. 14. Tonnage dues.

TONNAGE.—SEC. 15. Exemption from tonnage dues.

WHARF CHARGES.—SEC. 16. Wharf charges on exports.

EXEMPTIONS.—SEC. 17. Exemptions from wharf charges.

REIMPORTATIONS.—SECS. 18 and 19. Reimportation of insular products.

REPEALING.—SEC. 20.—Repealing clause.

REPERTORY AND INDEX.—SEC. 21. Repertory and index.

TITLE.—SEC. 22. Title of act “Tariff Revision Law, of 1901.”

IN EFFECT.—SEC. 23. Tariff law takes effect November 15, 1901.

This tariff enactment of the insular commission was accepted by statutory enactment of Congress in —.

CONFIRMATION OF "THE TARIFF REVISION LAW OF 1901."

"An act temporarily to provide revenue for the Philippine Islands, and for other purposes," approved March 8, 1902, which confirmed the tariff legislation of the Philippine Commission and defined the application of rates of duty, collection of tonnage taxes, issuing of licenses to engage in exclusively harbor business to vessels, the use of the funds so collected, and other details, and of customs application and regulation, as follows:

That the provisions of an act entitled "An act to revise and amend the tariff laws of the Philippine Archipelago," enacted by the United States Philippine Commission on the seventeenth day of September, nineteen hundred and one, shall be and remain in full force and effect, and there shall be levied, collected, and paid upon all articles coming into the Philippine Archipelago from the United States the rates of duty which are required by the said act to be levied, collected, and paid upon like articles imported from foreign countries into said archipelago.

SEC. 2. That on and after the passage of this act there shall be levied, collected, and paid upon all articles coming into the United States from the Philippine Archipelago the rates of duty which are required to be levied, collected, and paid upon like articles imported from foreign countries: *Provided*, That upon all articles the growth and product of the Philippine Archipelago coming into the United States from the Philippine Archipelago there shall be levied, collected, and paid only seventy-five per centum of the rates of duty aforesaid: *And provided further*, That the rates of duty which are required hereby to be levied, collected, and paid upon products of the Philippine Archipelago coming into the United States shall be less any duty or taxes levied, collected, and paid thereon upon the shipment thereof from the Philippine Archipelago, as provided by the act of the United States Philippine Commission referred to in section one of this act, under such rules and regulations as the Secretary of the Treasury may prescribe, but all articles, the growth and product of the Philippine Islands, admitted into the ports of the United States free of duty under the provisions of this act, and coming directly from said islands to the United States for use and consumption therein, shall be hereafter exempt from any export duties imposed in the Philippine Islands.

SEC. 3. That on and after the passage of this act the same tonnage taxes shall be levied, collected, and paid upon all foreign vessels coming into the United States from the Philippine Archipelago which are required by law to be levied, collected, and paid upon vessels coming into the United States from foreign countries: *Provided, however*, That until July first, nineteen hundred and four, the provisions of law restricting to vessels of the United States the transportation of passengers and merchandise directly or indirectly from one port of the United States to another port of the United States shall not be applicable to foreign vessels engaging in trade between the Philippine Archipelago and the United States, or between ports in the Philippine Archipelago: *And provided further*, That the Philippine Commission shall be authorized and empowered to issue licenses to engage in lighterage or other exclusively harbor business to vessels or other craft actually engaged in such business at the date of the passage of this act, and to vessels or other craft built in the Philippine Islands or in the United States and owned by citizens of the United States or by inhabitants of the Philippine Islands.

SEC. 4. That the duties and taxes collected in the Philippine Archipelago in pursuance of this act, and all duties and taxes collected in the United States upon articles coming from the Philippine Archipelago and upon foreign vessels coming therefrom, shall not be covered into the general fund of the Treasury of the United States, but shall be held as a separate fund and paid into the treasury of the Philippine Islands, to be used and expended for the government and benefit of said islands.

SEC. 5. That when duties prescribed by this act are based upon the weight of merchandise deposited in any public or private bonded warehouse, said duties shall be levied and collected upon the weight of such merchandise at the time of its entry.

SEC. 6. That all articles manufactured in bonded manufacturing warehouses in whole or in part of imported materials, or of materials subject to internal-revenue tax, and intended for shipment from the United States to the Philippine Islands, shall, when so shipped, under such regulations as the Secretary of the Treasury may prescribe, be exempt from the internal-revenue tax, and shall not be charged with duty except the duty levied under this act upon imports into the Philippine Islands.

That all articles subject under the laws of the United States to internal-revenue tax, or on which the internal-revenue tax has been paid, and which may under existing laws and regulations be exported to a foreign country without the payment of such tax, or with benefit of drawback, as the case may be, may also be shipped to the Philippine Islands with like privilege, under such regulations and the filing of such bonds, bills of lading, and other security as the Commissioner of Internal Revenue may, with the approval of the Secretary of the Treasury, prescribe. And all taxes paid upon such articles shipped to the Philippine Islands since November fifteenth, nineteen hundred and one, under the decision of the Secretary of the Treasury of that date, shall be refunded to the parties who have paid the same, under such rules and regulations as the Secretary of the Treasury may prescribe, and a sum sufficient to make such payment is hereby appropriated, out of any money in the Treasury not otherwise appropriated.

That where materials on which duties have been paid are used in the manufacture of articles manufactured or produced in the United States, there shall be allowed on the shipment of said articles to the Philippine Archipelago a drawback equal in amount to the duties paid on the materials used, less one per centum of such duties, under such rules and regulations as the Secretary of the Treasury may prescribe.

SEC. 7. That merchandise in bonded warehouse or otherwise in the custody and control of the officers of the customs, upon which duties have been paid, shall be entitled on shipment to the Philippine Islands within three years from the date of the original arrival, to a return of the duties paid less one per centum; and merchandise upon which duties have not been paid may be shipped without the payment of duties to the Philippine Islands within said period, under such rules and regulations as may be prescribed by the Secretary of the Treasury.

SEC. 8. That the provisions of the act entitled an "An act to simplify the laws in relation to the collection of revenues," approved June tenth, eighteen hundred and ninety, as amended by an act entitled "An act to provide for the Government and to encourage the industries of the United States," approved July twenty-fourth, eighteen hundred and ninety-seven, shall apply to all articles coming into the United States from the Philippine Archipelago.

Imports and exports of merchandise, 1900 and 1901.

[NOTE.—Beginning July 1, 1900, the statistical reports to the Division of Insular Affairs were based upon a new schedule, giving the classification of commodities imported and exported much more in detail than were required by the schedule in effect prior to that date. Owing to this change it is impossible to make comparison by articles and countries in some instances. In weights the ton is 2,240 lbs. and the hundredweights 112 lbs., unless otherwise indicated. The value of exports of domestic merchandise is their value at the time of exportation in the island whence they are exported.]

Imports and exports.	12 months ending June—	
	1900.	1901.
IMPORTS.		
Free of duty:		
Articles in a crude condition or partly so	\$6,477	\$340
Articles of voluntary use, luxuries, etc.	25,849	28,289
Miscellaneous.....	273,259	.....
Total free of duty	305,585	28,629
Dutiable:		
Articles of food and animals.....	5,483,806	8,158,794
Manufactured articles	11,169,012	18,329,186
Articles in a crude condition or partly so	311,642	900,062
Articles of voluntary use, luxuries, etc.	1,779,870	2,720,736
Miscellaneous.....	1,551,521	146,999
Total dutiable	20,295,851	30,255,777
Free and dutiable:		
Articles of food and animals.....	5,483,806	8,158,794
Manufactured articles	11,169,012	18,329,186
Articles in a crude condition or partly so	318,119	900,402
Articles of voluntary use, luxuries, etc.	1,805,719	2,744,025
Miscellaneous.....	1,824,780	146,999
Total free and dutiable.....	20,601,436	30,279,406
Total import duty collected	4,761,396	8,041,541
EXPORTS.		
Products of—		
Agriculture	17,272,144	20,635,421
Manufactures.....	1,521,736	1,617,030
Forest.....	28,923	173,345
Mining.....	933,265	978
Miscellaneous.....	.....	788,174
Total exports	19,751,068	23,214,948
Total export duty collected	567,656	758,159

GOLD AND SILVER.

	1900.	1901.	
Gold:			
Imports	\$149,349	\$508,223	
Exports	1,160,597	305,251	
Silver:			
Imports	2,293,071	2,030,782	
Exports	854,775	2,911,063	

TONNAGE.

[Net tons 100 cub. ft. carrying space after prescribed allowances for crew, engine, etc., space.]

Vessels.	12 months ending June—			
	1900.		1901.	
	Number.	Net tons.	Number.	Net tons.
Entered:				
Sailing.....	1,266	100,607	5,388	190,856
Steam.....	2,267	989,649	3,200	1,453,512
Cleared:				
Sailing	1,436	123,927	6,018	190,320
Steam.....	2,254	975,701	3,196	1,437,498

Imports and exports, by countries, including gold and silver.

Countries.	12 months ending June—			
	1900.		1901.	
	Imports.	Exports.	Imports.	Exports.
Europe:				
United Kingdom.....	\$3,946,459	\$6,240,509	\$6,956,145	\$10,704,741
Germany.....	1,210,067	98,398	2,135,232	81,526
France.....	485,684	1,392,439	1,684,233	1,934,256
Spain.....	2,091,207	1,320,458	2,166,866	1,656,400
Italy.....	91,681	5,781	145,566	5,008
Austria-Hungary.....	66,242	173,379	107,019	289,091
Belgium.....	120,001	.....	274,981	2,507
Denmark.....	9,806	.....	14,929	.....
Netherlands.....	200,271	1,300	179,306	20
Portugal.....	.....	205	.....	185
Russia.....	141,639	.....	314,788	.....
Sweden and Norway.....	506	.....	4,565	.....
Switzerland.....	215,990	75	892,936	18,423
Turkey.....	.....	.....	199	.....
Gibraltar.....	.....	5,241	105	8,584
Malta.....	.....	4,987	.....	982
Total Europe.....	8,579,553	9,242,520	14,877,085	14,701,723
North America:				
United States.....	1,657,701	3,635,160	3,034,655	2,572,021
Canada.....	.....	14,916	29,846	7,801
Total North America.....	1,657,701	3,650,076	3,064,501	2,579,822
Central America:				
Guatemala.....	.....	.....	.....	349
South America:				
Argentina.....	.....	300	.....	1,363
Bolivia.....	.....	.....	210	.....
Brazil.....	.....	1,010	.....	910
Uruguay.....	.....	.....	238	.....
Total South America.....	.....	1,310	.....	2,721
West Indies:				
Cuba.....	.....	.....	2,727	100
British West Indies.....	.....	.....	2,727	.....
Total West Indies.....	.....	.....	2,727	100
Asia:				
China.....	6,474,441	2,685,361	4,565,326	363,801
Hongkong.....	3,524,277	3,226,410	3,529,322	5,067,547
Japan.....	260,101	1,032,162	805,771	1,443,880
Korea.....	.....	.....	89	920
Aden.....	.....	.....	107	92
Siam.....	442	41,704	467,907	860
Turkey.....	.....	.....	48	191
British East Indies.....	1,973,340	963,605	2,830,797	1,314,084
Dutch East Indies.....	26,556	16,504	237,817	11,311
French East Indies.....	.....	.....	1,914,238	1,483
Portuguese East Indies.....	.....	250	.....	447
Total Asia.....	12,259,157	7,966,326	14,351,422	8,204,616
Oceania:				
German.....	.....	603	.....	.....
Spanish.....	.....	.....	.....	101
Australasia.....	544,440	561,490	442,318	600,163
Hawaiian Islands.....	.....	3,569	.....	1,357
Ladrone Islands.....	.....	77	.....	.....
Guam.....	.....	.....	606	2,751
Total Oceania.....	544,517	568,662	442,924	604,372
Africa:				
British.....	.....	4,026	.....	17,450
French.....	.....	.....	533	.....
Egypt.....	2,928	333,520	79,219	320,109
Total Africa.....	2,928	337,546	79,752	337,559
Total all countries.....	23,043,856	21,766,410	32,818,411	26,431,262

Imports and exports, by countries, including gold and silver—Continued.

RECAPITULATION.

Countries—	12 months ending June—			
	Imports—		Exports—	
	1900.	1901.	1900.	1901.
Europe.....	\$8,579,553	\$14,877,085	\$9,242,520	\$14,701,723
North America.....	1,657,701	3,064,501	3,650,076	2,579,822
South America.....			1,310	2,721
Central America.....				349
West Indies.....		2,727		100
Asia.....	12,259,157	14,351,422	7,966,326	8,204,616
Oceania.....	544,517	442,924	568,662	604,372
Africa.....	2,928	79,752	337,546	337,559
Total.....	23,043,856	32,818,411	21,766,440	26,431,262

Imports and exports of gold and silver, by countries.

Countries.	12 months ending June—			
	1900.		1901.	
	Imports.	Exports.	Imports.	Exports.
Gold ore:				
United Kingdom.....		\$2,050		
Hongkong.....				\$6,000
Total.....		2,050		6,000
Gold bullion:				
Germany.....		1,050		
Hongkong.....		2,365		150
China.....		78,705		
Total.....		82,120		150
Gold coin:				
United States.....		63,000	\$178,970	
United Kingdom.....		13,250		
France.....			304	
Spain.....		12,524	5,514	
China.....	\$57,445	534,826	77,585	
Hongkong.....	36,232	452,827	208,815	298,085
British East Indies.....	55,672		37,035	1,016
Total.....	149,349	1,076,427	508,223	299,101
Silver bullion:				
China.....		6,039		1,250
British East Indies.....			5	
Total.....		6,039	5	1,250
Silver coin:				
United States.....		50,000		
Spain.....		81,459		1,145
Egypt.....			75,000	
China.....	718,552	607,062	147,800	288,850
Hongkong.....	848,425	85,080	979,922	2,066,033
British East Indies.....	726,094	25,135	610,865	553,785
Dutch East Indies.....			217,190	
Total.....	2,293,071	848,736	2,030,777	2,909,813
Grand total.....	2,442,420	2,015,372	2,539,005	3,216,314

Vessels doing the carrying trade—June, 1901.

Imports (foreign) from—	Total.	Imports (foreign) from—	Total.
United States.....	\$282,610	Canada.....	\$525
United Kingdom.....	487,859	China.....	221,323
Germany.....	176,042	Hongkong.....	296,948
France.....	115,560	Japan.....	94,412
Spain.....	158,449	Korea.....	25
Italy.....	7,325	Siam.....	86,228
Austria-Hungary.....	7,667	British East Indies.....	254,601
Belgium.....	17,290	Dutch East Indies.....	526
Gibraltar.....	105	French East Indies.....	248,425
Netherlands.....	12,894	Australasia.....	150,184
Portugal.....	145	Egypt.....	223
Russia.....	37,406	French Africa.....	100
Sweden and Norway.....	60	Total.....	
Switzerland.....	32,226		2,689,158

Vessels doing the carrying trade—June, 1901—Continued.

Exports (foreign) to—	Total.	Exports (foreign) to—	Total.
United States.....	\$92,773	Canada.....	\$1,323
United Kingdom.....	1,107,490	China.....	3,797
Germany.....	5,225	Hongkong.....	138,942
France.....	46,545	Japan.....	235,114
Spain.....	166,417	British East Indies.....	43,457
Italy.....	865	Dutch East Indies.....	1,312
Austria-Hungary.....	19,525	Australasia.....	48,014
Belgium.....	437	Total	1,911,399
Gibraltar.....	143		
Netherlands.....	20		

Imports and exports, by Philippine customs districts, including gold and silver.

Ports.	Imports 12 months ending June—		Exports 12 months ending June—	
	1900.	1901.	1900.	1901.
Manila.....	\$20,839,174	\$28,586,988	\$17,180,846	\$21,522,444
Iléilo.....	1,235,445	2,336,918	2,075,244	1,512,046
Cebú.....	850,988	1,430,363	2,377,506	3,093,714
Jolo (Sulu).....	84,429	326,295	99,955	230,872
Sinsi.....	19,494	57,250	28,808	47,096
Zamboanga.....	14,326	80,597	4,041	25,090
Total.....	23,043,856	32,818,411	21,766,440	26,431,262

Imports of the Philippine Islands, by countries, during the calendar years 1889 to 1893, inclusive, as compared with 1899 and 1900.

Countries from which imported.	1889.	1890.	1891.	1892.	1893.	1899.	1900.	Percent in 1900.
United Kingdom.....	\$5,583,293	\$5,767,568	\$5,122,687	\$5,196,192	\$4,247,883	\$3,239,066	\$5,576,931	20
Spain.....	(*)	(*)	3,376,257	4,397,642	5,104,875	2,703,336	1,989,235	7
China (including Hong-kong).....	4,315,168	3,903,722	3,534,735	3,029,940	2,237,471	7,989,763	9,536,443	34
Singapore.....	1,990,739	2,541,158	1,812,692	987,652	156,185			
French Indo-China ^b	2,058,608	1,556,423	1,711,893	1,003,074	517,933	1,091,922	(*)	
Germany.....	1,380,664	185,454	312,092	527,587	1,246,248	922,875	1,631,816	6
United States.....	558,254	540,506	347,338	208,392	956,706	1,351,854	2,153,198	8
France.....	678,254	22,166	171,888	272,866	477,026	292,038	978,095	4
Belgium.....	401,793	521,699	294,287	175,509	78,342	114,475	203,533	1
Switzerland.....	62,866	936	8,514	47,016	206,800	174,469	709,807	3
Japan.....	13,782	31,193	38,857	37,972	182,678	183,758	441,319	2
Australasia.....	24,687	17,068	48,294	119,630	65,399	616,097	197,774	1
Austria-Hungary.....	32,642	.....	1,968	18,987	62,970	72,114	88,634	.....
Netherlands.....	41,323	5,819	6,823	13,004	40,599	178,189	160,173	.....
Egypt, Port Said.....	39,870	6,675	12,493	3,185	3	3	4,276	.....
Italy.....	15,348	444	355	8,790	32,385	65,752	137,283	.....
Russia.....	.....	.....	248,654	262,956	121,341	257,198	1	.....
British India.....	.....	.....	.....	2,605	.....	.....	.....	.....
Sweden and Norway.....	.....	.....	.....	1,456	.....	4,730	.....	.....
Denmark.....	.....	.....	.....	1,352	10,124	13,093	.....	.....
Portugal.....	.....	.....	.....	199	373	.....	.....	.....
British East Indies.....	.....	.....	.....	.....	41,285,063	2,631,294	9	.....
Dutch East Indies.....	.....	.....	.....	.....	25,450	234,778	1	.....
Other countries.....	•78,835	•748,004	3,934	9,471	5,299	2,012	815,490	3
Total.....	17,236,256	15,884,060	16,798,289	16,314,901	15,890,500	20,440,074	27,765,100	100

^a No separate statistics available.^b Through Saigon.^c Included under China, 1900.^d Reports do not specify Singapore; probably included in British East Indies.^e Including imports from Spain.

Annual average values of merchandise exported, 1892-1896, as compared with those of 1899 and 1900.

Countries.	1892-1896.	1899.	Per cent in 1899.	1900.	Per cent in 1900.
United Kingdom	\$8,844,026	\$3,701,245	19	\$8,117,770	32
Spain	3,855,165	1,160,007	6	1,619,270	6
United States	^a 6,053,232	4,040,255	21	2,968,551	11
France	986,012	574,929	3	2,533,607	10
Canada	1,174,068	4,721		15,605	
Germany	201,158	25,410		126,729	
Straits Settlements	^b 345,430	(*)		(*)	
Japan	616,631	2,017,120	10	794,453	3
Australasia	106,602	320,103	2	621,892	2
China (including Hongkong)	31,710	6,970,831	37	7,215,941	27
Belgium	27,487			20	
Netherlands	106,451	1,300			
Dutch East Indies	^c 99,174	22,244		16,027	
Austria-Hungary	18,894	750		406,865	1
British East Indies		384,525	2	1,571,509	6
British India	7,835				
Ceylon	^d 9,117				
Cape Colony	386				
Switzerland		343		18,438	
Italy		1,720		5,131	
Gibraltar				12,802	
Egypt		41,119		612,340	2
Other countries		6,766		74,212	

^a Annual average, 1893 to 1897.

^b Annual average, 1892 and 1893.

^c Statistics for 1896 only.

^d Annual average, 1893 to 1896.

^e Included under British East Indies.

Quantities and values of the principal articles of merchandise imported into the Philippine Islands during the calendar year 1900.

Articles imported.	1899.		1900.	
	Quantities.	Values.	Quantities.	Values.
AGRICULTURAL IMPORTS.				
Wines	gallons.	337,394	\$432,350	\$279,818
Rice	pounds.	242,818,913	3,523,691	4,365,056
Wheat flour	barrels.	65,741	381,998	475,236
Canned goods			128,185	129,201
Distilled spirituous liquors	gallons.	119,793	292,557	170,128
Pork, bacon, and lard	pounds.	1,008,660	144,669	2,193,898
Vegetables	do.		216,847	275,959
Olive oil	do.		53,086	27,303
Malt liquors and cider	gallons.		277,836	1,113,684
Cocoa	pounds.	540,555	160,436	842,437
Beeswax, stearin, etc.	do.			171,317
Fruits	do.		70,136	87,514
Butter	do.	261,597	58,617	85,637
Cheese	do.	177,040	40,521	299,011
NONAGRICULTURAL IMPORTS.				
Cotton manufactures	pounds.		4,522,408	8,729,777
Mineral oils	do.		160,720	374,717
Iron and steel manufactures	do.		388,138	1,425,233
Copper, and manufactures of	do.		99,051	53,949
Paper, and manufactures of	do.		512,239	379,225
Flax, hemp, jute, etc., manufactures of	do.		272,292	245,365
Silk manufactures	do.		183,000	385,981
Earthen, stone, and china ware			184,067	95,299
Woolens			121,201	168,211
Glass and glassware			579,418	395,620
Boots and shoes	pairs.		144,125	160,309
Leather and manufactures			78,614	81,692
Fish	pounds.		135,407	95,255
Books, etc.	do.		310,485	83,880
Agricultural machinery	do.		4,498	5,720
Pianos	number.		1,500	8,310
Jewelry			44,957	191,968

Quantities and values of the principal articles exported from the Philippine Islands during the calendar year 1900.

Articles exported.	1899.		1900.	
	Quantities.	Values.	Quantities.	Values.
Manila hemp.....tons.	69,048	\$7,993,574	89,438	\$13,290,400
Sugar.....pounds.	189,226,650	3,459,710	143,719,971	2,397,144
Copra, including cocoanuts.....do.		727,256		3,181,853
Cigars and cigarettes.....do.		946,702		1,164,369
Leaf tobaccoo.....do.	14,050,310	776,841	22,028,546	1,033,900
Coffee.....do.	75,647	12,132	29,825	3,142
Rice.....do.				
Cordage and rope.....do.			17,289	2,305
Indigo.....do.	256,549	32,694	12,226	1,325
Hides and skins.....do.		50,047		311,183
Timber and lumber.....		1,133		24,077
Wax, stearin.....pounds.	70,708	2,245	250	33

Hemp exports, 1850-1899.

[From report of the Manila Chamber of Commerce.]

Year.	United States.	Great Britain.	California.	Australia.	Other ports	Total exports.
1850..... <i>Bales.</i>	59,097	8,740	.....	2,578	70,415	
1851.....	71,567	11,801	.....	3,918	87,286	
1852.....	110,257	11,876	.....	3,499	125,632	
1853.....	102,292	6,545	.....	2,508	111,345	
1854.....	114,009	46,369	.....	948	161,326	
1855.....	107,290	10,335	.....	1,867	119,492	
1856.....	156,193	18,604	1,449	1,401	177,647	
1857.....	121,555	47,991	2,678	1,571	173,795	
1858.....	144,476	52,817	5,070	3,889	206,252	
1859.....	142,328	65,336	2,440	2,985	213,089	
1860.....	140,738	51,019	4,720	2,019	198,496	
1861.....	80,489	96,831	4,800	8	1,882	184,010
1862.....	114,697	113,743	5,300	670	1,645	236,055
1863.....	110,902	91,830	6,260	477	2,567	212,036
1864.....	124,553	113,129	4,713	2,597	1,684	246,676
1865.....	144,722	39,658	6,800	4,775	2,943	198,898
1866.....	139,444	48,216	7,560	6,122	2,010	203,352
1867.....	143,785	57,015	8,801	6,050	2,251	217,902
1868.....	147,364	65,030	7,100	10,572	2,474	232,540
1869.....	146,846	47,284	11,600	6,729	1,315	213,174
1870.....	163,859	65,590	7,950	5,717	1,164	244,280
1871.....	242,556	71,749	11,250	3,358	2,963	331,876
1872.....	200,172	88,535	17,124	4,064	2,725	312,620
1873.....	161,057	119,482	17,998	9,600	3,197	311,334
1874.....	158,965	114,897	24,633	4,995	4,512	308,097
1875.....	99,216	131,987	19,111	7,598	5,004	262,916
1876.....	120,527	153,095	21,750	14,262	5,730	315,364
1877.....	153,222	142,317	9,700	6,597	3,432	315,268
1878.....	124,592	172,174	17,650	15,856	3,417	333,689
1879.....	162,264	136,229	14,500	6,050	4,936	323,979
1880.....	189,657	178,143	14,910	12,190	5,563	400,463
1881.....	253,361	148,763	19,500	9,546	3,282	434,452
1882.....	176,521	142,519	14,300	16,752	3,580	353,672
1883.....	176,670	167,151	9,400	16,866	3,348	373,435
1884.....	168,074	213,577	7,431	13,070	5,657	407,809
1885.....	194,309	190,919	8,067	13,372	10,463	417,130
1886.....	173,061	164,148	13,150	9,737	11,586	371,682
1887.....	245,845	227,288	15,528	14,798	11,514	514,973
1888.....	246,437	347,854	34,950	17,723	14,465	661,429
1889.....	199,707	322,022	20,200	17,561	9,081	568,571
1890.....	109,719	341,993	21,500	18,413	14,530	506,155
1891.....	132,267	443,213	24,350	18,522	17,194	635,546
1892.....	383,076	358,366	19,756	13,783	15,527	790,508
1893.....	212,463	372,841	22,050	15,393	18,722	641,469
1894.....	401,755	335,372	18,600	10,779	29,475	795,981
1895.....	273,918	493,760	27,750	13,085	23,782	832,295
1896.....	290,327	407,522	18,450	16,888	32,706	765,893
1897.....	417,963	403,522	25,450	18,829	36,614	902,378
1898.....	338,124	392,127	18,325	15,893	28,137	792,606
1899.....	265,828	269,860	19,120	14,576	31,354	600,738

Philippine hemp statistics—Hemp receipts, 1850–1899.

[From report of Manila Chamber of Commerce.]

	<i>Piculs.</i>		<i>Piculs.</i>		<i>Piculs.</i>		<i>Piculs.</i>	
1850	136,964	1863	470,754	1876	618,952	1889	1,131,768	
1851	182,503	1864	478,065	1877	669,674	1890	1,085,824	
1852	237,864	1865	379,191	1878	650,313	1891	1,358,846	
1853	250,623	1866	371,256	1879	686,874	1892	1,520,253	
1854	310,971	1867	402,388	1880	807,712	1893	1,540,462	
1855	280,012	1868	492,884	1881	866,321	1894	1,584,541	
1856	356,055	1869	427,070	1882	707,114	1895	1,603,507	
1857	388,000	1870	502,822	1883	797,330	1896	1,618,864	
1858	445,750	1871	517,856	1884	795,172	1897	1,750,866	
1859	444,398	1872	616,603	1885	846,151	1898	1,484,408	
1860	486,212	1873	672,238	1886	805,415	1899	985,522	
1861	414,696	1874	629,150	1887	1,069,350			
1862	463,971	1875	534,450	1888	1,315,582			

Comparative statement of exports from Philippine ports, 1890–1899.

[From report of the Manila Chamber of Commerce.]

SUGAR.

[Piculs.]

[1 picul = 137.9 (P. I.) United States pounds.]

Year.	From—			Total.	To—					Total.
	Manila.	Cebú.	Iloilo.		Great Britain.	Nova Scotia and Canada.	Continent of Europe.	China and Japan.	California.	
1890	874,088	55,280	1,431,054	2,360,422	640,656	997,851	62,905	576,690	82,320	2,360,422
1891	1,174,374	140,200	1,557,685	2,767,259	781,701	1,604,072	37,394	299,286	2,672,259	
1892	1,089,054	294,220	2,571,989	3,955,263	1,181,392	1,505,872	48,512	1,219,487	3,955,263	
1893	1,712,059	271,400	2,203,523	4,186,982	1,577,155	1,291,421	69,493	1,248,913	4,186,982	
1894	1,577,523	163,172	1,369,507	3,110,202	978,719	910,155	68,666	1,152,662	3,110,202	
1895	1,729,655	213,352	1,754,315	3,697,332	1,373,433	1,055,237	63,149	1,205,513	3,697,332	
1896	1,563,277	123,228	1,984,519	3,671,024	901,256	1,305,828	55,946	1,407,994	3,671,024	
1897	918,114	247,110	2,066,786	3,282,010	799,548	342,540	28,862	2,061,060	3,232,010	
1898	251,169	189,469	2,449,023	2,859,661	675,670	520,752	2,887	1,660,352	2,859,661	
1899	80,374	210,780	1,197,700	1,480,854	132,792	353,680	164,033	888,349	1,488,854	

COPRA.

[Piculs.]

Year.	From—			Total.	To—			Total.
	Manila.	Cebú.	Iloilo.		Great Britain.	Continent of Europe.	China, etc.	
1890	74,447	.....	.....	74,447	2,894	3,200	68,353	74,447
1891	245,309	.....	.....	245,309	73,307	131,142	40,860	245,309
1892	259,539	.....	.....	259,539	41,991	198,737	18,811	259,539
1893	184,304	.....	.....	184,304	26,400	129,405	28,499	184,304
1894	512,729	19,504	.....	532,233	121,627	378,746	31,860	532,233
1895	549,319	44,352	.....	593,671	115,097	451,515	27,059	593,671
1896	558,329	49,200	.....	607,529	49,200	554,112	4,217	607,529
1897	765,023	46,414	.....	811,437	57,614	752,470	1,353	811,437
1898	252,840	10,562	.....	263,402	12,180	248,655	2,567	263,402
1899	215,819	66,282	9,221	291,322	44,704	246,366	252	291,322

Comparative statement of exports from Philippine ports, 1890-1899—Continued.

LEAF TOBACCO.

[Quintals.]

[1 quintal = 101.44 United States pounds.]

Year.	To—				Total.
	Great Britain.	United States.	Continent of Europe.	China, etc.	
1890.....	2,706	.....	169,328	7,020	179,054
1891.....	7,664	.....	195,925	3,577	207,166
1892.....	5,334	4	247,160	1,352	253,850
1893.....	15,904	18	213,611	1,153	230,686
1894.....	10,500	10	178,599	1,795	190,904
1895.....	180	4	203,611	3,576	207,371
1896.....	6,387	44	189,973	23,325	219,729
1897.....	37,008	.....	253,341	26,363	316,712
1898.....	21,893	312	143,153	9,812	175,170
1899.....	20,845	.....	89,094	4,322	114,261

TRADE BETWEEN THE UNITED STATES AND THE PHILIPPINES.

Value of merchandise imported and exported by the United States in trade with the Philippine Islands by annual average, by decades, 1848-1897.

Years ended June 30.	Imports.		Exports.			Total imports and exports.	Excess of imports over exports.
	Free.	Dutiable.	Total.	Domestic merchandise.	Foreign merchandise.		
Annual average:							
1848-1857.....	\$38,060	\$2,080,786	\$2,118,846	\$86,462	\$5,706	\$92,168	\$2,211,014
1858-1867.....	89,888	2,565,783	2,655,071	77,675	330	78,005	2,733,076
1868-1877.....	232,972	5,788,555	6,021,527	95,859	3,590	99,449	6,120,976
1878-1887.....	132,747	8,621,660	8,754,407	106,304	667	106,971	8,861,378
1888-1892.....	1,888,242	6,897,746	8,785,988	130,662	.....	130,662	8,916,650
1893-1897.....	5,090,512	962,720	6,053,232	135,207	21	135,228	6,188,460
1888-1897.....	3,489,377	3,930,233	7,419,610	132,935	10	132,945	7,552,555

Value of imports and exports of the United States in trade with the Philippine Islands, 1891 to 1900.

Year ending June 30—	Imports.			Exports.			Total.
	Free.	Dutiable.	Total.	Domestic.	Foreign.	Total.	
1891.....	3,087,268	2,079,941	5,167,209	124,572	.....	124,572	
1892.....	6,239,642	69,011	6,308,653	60,914	.....	60,914	
1893.....	9,117,170	42,687	9,159,857	154,378	.....	154,378	
1894.....	6,992,364	15,978	7,008,342	145,466	.....	145,466	
1895.....	3,657,952	1,073,414	4,731,366	119,255	.....	119,255	
1896.....	2,599,020	2,383,837	4,982,857	162,341	105	162,446	
1897.....	3,086,057	1,297,683	4,383,740	94,597	.....	94,597	
1898.....	3,387,168	443,247	3,830,415	127,787	17	127,804	
1899.....	3,401,157	1,008,617	4,409,774	401,258	2,935	404,193	
1900.....	5,031,989	939,219	5,971,208	2,635,624	4,825	2,640,449	

*Subject to revision.

IMPORTS.

Selected list of articles of import for the twelve months ending June, 1901, to show their relative market demand and the relations of the United States in value to the principal competing nations.

Agricultural implements:	Value.
Plows, cultivators, and parts.....	\$1,595
United States.....	per cent. .61
All other implements.....	6,549
United Kingdom.....	per cent. .82
Brass, and manufactures of (Germany, England, United States).....	94,641
Cars, carriages, and other vehicles, and parts of, steam.....	78,382
United States.....	per cent. .95

Selected list of articles of import for the twelve months ending June, 1901, etc.—Continued.

		Value.
Cycles, and parts of		\$82,132
United States	per cent.	.92
Cotton, and manufactures of: Cotton, raw		69,240
United States	\$32,660	
United Kingdom	32,354	
Manufactures of, cloth		4,580,101
United States	\$66,540	
United Kingdom	2,670,174	
Germany	184,066	
Loosely woven muslins		2,453,742
United States	\$18,373	
United Kingdom	1,479,223	
Wearing apparel		773,424
United States	\$4,676	
Germany	211,883	
United Kingdom	110,983	
Iron, bar		63,571
United States	\$2,283	
United Kingdom	48,371	
Sheets, and plates		218,223
Great Britain	\$211,446	
Cutlery, all other		80,607
United States	\$3,561	
Germany	56,196	
Great Britain	5,650	
France	5,531	
Boilers and parts of engines		117,213
United States	\$27,119	
United Kingdom	73,334	
Sewing machines		127,737
United States	\$34,914	
Germany	66,747	
Typewriter (machines)		23,952
United States	\$22,886	
Boots and shoes		217,665
United States	\$10,929	
Spain	118,843	
Beer in bottles		1,030,698
United States	\$854,474	
United Kingdom	33,124	
Germany	39,818	
Oil, illuminating		451,319
United States	\$22,748	
Russia	307,002	

EXPORTS.

A selected list of articles of export from the Philippine Islands for the twelve months ending June, 1901, showing their quantity and value.

Articles and countries.	Quantities.	Values.
Books, maps, engravings, etc., exported to—		
United Kingdom	free.	\$25
Spain	do	117,650
Hongkong	do	466
British East Indies	do	58
Total		118,199
Coffee, exported to—		
United States	free. lbs.	105
United Kingdom	do	275
France	do	22
Spain	do	705
Switzerland	do	103
China	do	442
Hongkong	do	3,292
British East Indies	do	1,672
German Oceania	do	
Total	81,994	6,616
Copper, and manufactures of, exported to—		
United Kingdom	free. lbs.	2,000
Spain	do	
China	do	
Hongkong	do	22,069
British East Indies	do	370
Total	244,635	24,439

A selected list of articles of export from the Philippine Islands for the twelve months ending June, 1901, showing their quantity and value—Continued.

Articles and countries.	Quantities.	Values.
Fibers, vegetable, textile grasses, and manufactures of:		
Hemp (manila) exported to—		
United States.....	dut. tons.	17,872
United Kingdom.....	do.	74,635
France.....	do.	83
Spain.....	do.	187
China.....	do.	
Hongkong.....	do.	9,169
Japan.....	do.	2,090
British East Indies.....	do.	1,450
Dutch East Indies.....	do.	1
Australasia.....	do.	2,034
Egypt.....	do.	1,691
Canada.....	do.	19
Total.....		109,231
		14,453,110
Fish:		
Trepang, exported to British East Indies.....	free. lbs.	47,165
		4,035
All other, exported to—		
Hongkong.....	do.	127,365
Japan.....	do.	308
British East Indies.....	do.	97,280
Total.....		224,953
		22,678
Fruits and nuts:		
Cocoanuts, exported to—		
France.....	dut.	14,400
Hongkong.....	do.	515
British East Indies.....	do.	130
Total.....		15,045
United States.....	dut.	4,450
United Kingdom.....	do.	126,580
Germany.....	do.	480
France.....	do.	1,759,577
Spain.....	do.	547,529
Austria-Hungary.....	do.	77,765
China.....	do.	184
Hongkong.....	do.	1,074
Japan.....	do.	45,000
British East Indies.....	do.	39,970
Egypt.....	do.	45,696
Total.....		2,648,305
Gums and resins:		
Copal, exported to—		
United Kingdom	free.	30,621
Germany	do.	2,793
France	do.	1,690
Hongkong	do.	635
Japan	do.	150
British East Indies	do.	74,047
Total.....		109,936
Glue, exported to—		
Hongkong	free.	8,140
British East Indies	do.	867
Total.....		9,007
Pitch, exported to—		
France	free.	1,250
Hongkong	do.	500
Total.....		1,750
All other, exported to—		
United Kingdom	free.	2,757
Germany	do.	575
France	do.	300
Hongkong	do.	295
British East Indies	do.	9,767
Total.....		13,964

A selected list of articles of export from the Philippine Islands for the twelve months ending June, 1901, showing their quantity and value—Continued.

Articles and countries.	Quantities.	Values.
Oils:		
Cocoanut oil, exported to—		
Hongkong	free..galls..	9
British East Indies	do..	37
Total		46
Ylang-ylang oil, exported to—		
United States	free..	2,000
Germany	do..	1,150
France	do..	28,385
Hongkong	do..	9,290
British East Indies	do..	1,150
Total		41,975
All other, exported to—		
United Kingdom	free..	225
France	do..	12,027
Spain	do..	1,213
Hongkong	do..	700
Total		14,165
Perfumery, cosmetics, etc., exported to—		
United States	free..	511
United Kingdom	do..	
Germany	do..	
France	do..	8,530
Hongkong	do..	1,725
British East Indies	do..	1,200
Australasia	do..	
Total		11,966
Shells:		
Mother-of-pearl, exported to—		
United Kingdom	free..	4,737
Germany	do..	850
Hongkong	do..	6,603
British East Indies	do..	120,302
Total		132,492
Tortoise shell, exported to—		
Hongkong	free..	4,090
British East Indies	do..	3,514
Total		7,604
All other, exported to—		
United States	free..	2,765
United Kingdom	do..	5,972
Germany	do..	2,764
France	do..	1,500
Austria-Hungary	do..	1,320
Hongkong	do..	8,250
British East Indies	do..	11,321
Total		33,892
Sugar, raw or brown, exported to—		
United States	dut..lbs..	4,747,555
United Kingdom	do..	15,431,980
Spain	do..	149
China	do..	
Hongkong	do..	51,394,248
Japan	do..	52,173,560
Egypt	do..	
Total		123,747,492
Tobacco, and manufactures of:		
Suitable for wrappers, exported to—		
United Kingdom	dut..lbs..	840
Germany	do..	23,676
Spain	do..	7,039,763
Austria-Hungary	do..	2,589,296
China	do..	4,617
Hongkong	do..	11,758
British East Indies	do..	63,221
		400
		2,625
		428,949
		157,466
		728
		1,130
		12,419

A selected list of articles of export from the Philippine Islands for the twelve months ending June, 1901, showing their quantity and value—Continued.

Articles and countries.	Quantities.	Values.
Tobacco, and manufactures of—Continued.		
Suitable for wrappers, exported to—Continued.		
Dutch East Indies.....dut., lbs..	4,191	\$856
Anstralasia.....do.	3,176	1,072
Argentina.....do.	5,262	200
Guam.....do.	506	65
Total.....	9,746,306	605,910
All other unmanufactured, exported to—		
United Kingdom.....dut., lbs..	1,414	169
Germany.....do.	12,458	2,198
France.....do.	1,394	169
Spain.....do.	7,333,148	297,469
Austria-Hungary.....do.	788,882	40,175
Netherlands.....do.	171	—
China.....do.	4,246	—
Hongkong.....do.	3,317	930
Japan.....do.	75	15
British East Indies.....do.	15,896	2,913
Dutch East Indies.....do.	46	10
Argentina.....do.	5,288	150
Uruguay.....do.	5,262	156
Hawaiian Islands.....do.	3,381	636
Anstralasia.....do.	7,816	2,200
Total.....	8,182,794	347,610
Manufactures of cigars, exported to (selected list)—		
United States.....dut.	5,027	
United Kingdom.....do.	201,591	
Germany.....do.	43,421	
France.....do.	35,303	
Spain.....do.	13,901	
Italy.....do.	5,008	
Austria-Hungary.....do.	12,115	
China.....do.	63,978	
Hongkong.....do.	237,111	
Japan.....do.	10,260	
British East Indies.....do.	127,039	
Dutch East Indies.....do.	10,237	
Anstralasia.....do.	341,899	
British Africa.....do.	17,450	
Canada.....do.	4,351	
Total, including smaller amounts.....		1,250,175

COINS, WEIGHTS, AND MEASURES.

Coins.—The chief medium of exchange in the Philippine Islands is the Mexican silver dollar (peso) of 416 grains of silver of the fineness of $\frac{9}{10}0\frac{2}{5}$. In 1897 the Spanish Government issued a distinctive Filipino peso, which has circulated side by side with the Mexican silver dollar. This Filipino peso, containing less pure silver than the Mexican dollar, is still in circulation, but constitutes only a small percentage of the amount of silver in use in the islands. The exchange value of the Mexican dollar fixed by the Philippine Commission was 50 cents.

The coins in current circulation in the Philippines are:

- (a) Spanish Filipino silver peso.
- (b) Mexican dollar.
- (c) Filipino silver half dollar.
- (d) Filipino silver half peseta, 10 cents.
- (e) Filipino copper cuartos and centavos. A centavo = 1 cent and a cuarto $\frac{1}{4}$ of a dollar; 1 cuarto = $0.1\frac{1}{2}$ of a dollar; 20 cuartos = 1 real (or $12\frac{1}{2}$ cents); 8 reals or 100 centavos or 160 cuartos = 1 peso, or duro.

The value of foreign coins in occasional use, not including rates of exchange, is:

1 haikwan (China) tael, January 1, 1892.....	= \$0.68	United States.
1 rupee (silver) India.....	= .324	United States.
1 yen, Japan	= .498	United States.

The "British dollar" has the same legal value as the Mexican dollar in Hongkong, the Straits Settlements, and Lauban. The sovereign is the standard coin in India, but the rupee is the money of account. The Netherlands florin used in the Dutch Indies (Java, etc.) fluctuated up to the year 1880, when it became fixed at 40.2 cents United States. The gold standard was adopted in Japan October 1, 1897.

A local silver coin in use in the Philippine Islands and still familiar to the people is the salapí (broadly meaning money), the Tagálog word for a \$0.50 Spanish coin.

The local names in trade for subdivisions of the salapí are:

Tatlong bahague.....	= \$0.37 of Mexican dollar.
Cahati.....	= .25 of Mexican dollar.
Sicápat.....	= .12 of Mexican dollar.
Sicolo.....	= .06 of Mexican dollar.

The unit of the above is the cuarto (copper) or *cualta* in Tagálog, struck in Spain for circulation in the Philippines, = Mexican 0.01 $\frac{1}{4}$, (80 cuartos = Mexican dollar). Grando C, the local name in Mindanao for a brass round coin, value 8 or 10 cents Mexican or 5 cents gold.

The gold coins of the United States and the United States silver dollar have generally passed current in the cities since the American occupation at the rate of 2 local dollars for 1 dollar of the United States.

The paper currency of the Philippines is now limited to the issues of the Spanish-Filipino Bank, and American paper money.

Weights and measures.—The metrical system of weights and measures as authorized by sections 3569 and 3570 of the Revised Statutes of the United States, and at present in use in the Philippine Islands, shall be continued. (Act (No. 230) September 17, 1901, section 9, Philippine tariff.)

Measure (metric) terms in most common use:

Hectoliter	{	= 2,838 United States bushels.
		= 26,417 United States gallons.
Kilogram	=	2,2046 United States pounds.
Kilometer.....	=	0.62137 United States mile.
Liter	=	1.0567 United States quarts.
Meter	=	39.37 United States inches.
Meter, square	=	10.764 United States feet.
Meter, cubic (stere)	{	= 1.307 United States cubic yards.
		= 35.3 United States cubic feet.

The natives measure and sell rice and paddy by the caván and its fractions. The caván dry measure is as follows, viz:

4 apatáns.....	= 1 chupa.
8 chupas	= 1 ganta.
25 gantas	= 1 caván.
1 ganta.....	= 3 liters or 3.1701 United States quarts.

The equivalents of which in United States measure are:

1 apatán.....	= 0.16875 of a pint.
1 chupa	= 0.675 of a pint.
1 ganta.....	= 2 quarts, 1 $\frac{1}{2}$ pint.
1 caván	= 16 gallons, 3 quarts, 1 pint.

Rice of foreign importation is weighed and quoted by the picul, or 137.9 (Philippine) United States pounds, subdivided as follows:

16 taels	= 1 catty.
10 catties.....	= 1 chinanta.
10 chinantas.....	= 1 picul.

Grain and liquid measures.

1 caván	= 25 gantas = 75 liters.
1 ganta	= 8 chupas = 3 liters.
1 chupa.....	= $\frac{3}{8}$ liter.

Although the metrical system has been officially adopted in the Philippines, the following weights and measures of Spanish origin are more or less in use, viz:

Arroba (dry) = 25 libras = 25.36 pounds.

Arroba (liquid) = 4.263 gallons.

Bayon, a woven grass sack of indefinite capacity for the transportation of Filipino sugar.

Fardo, a local weight for tobacco, = 33 Spanish pounds.

League = linear measure 2.634 United States miles.

Libra = weight measure 1.0144 pounds.

Milla = linear measure, 1,760 yards, or 1,609.3 meters.

Pie = linear 0.9478 foot.

Quintal (dry) = 4 arrobas = 101.44 pounds.

Quintal (metric) = 220.46.

Ton (tonelada), space measure, = 40 cubic feet.

Ton, weight measure, = 20 metric quintals.

Vara, linear measure, = 0.914117 yard, or 33.384 inches, United States.

1 hectare, land measure, Spanish, = 2.471 United States acres.

1 quíñón, land measure, square, 100 loans, = 2.79495 acres; hectares = 6.89 acres.

1 square meter = 10.764 United States feet.

1 cubic meter (stere) = 1.307 United States cubic yards, or 35.3 cubic feet.

The picul varies in different countries as follows:

Borneo and Celebes	135.64	United States pounds.
China, Japan, and Sumatra	133 $\frac{1}{2}$	United States pounds.
Java	135.1	United States pounds.
Philippine Islands	137.9	United States pounds.
16 piculs	= 1 ton, United States.	
2 piculs	= 1 bale (hemp).	
Liter (dry)	= 0.908 quart.	
Liter (liquid)	= 1.056 quarts.	
Tael	= 509.75 grains troy.	

Table of distances between Manila and Philippine Islands points.

[Distance direct in statute miles, unless otherwise stated, between Manila and the capital of each province or chief town of group or island.]

Capital or chief town.	Province, group, or island.	Route.	Stat. m.
From Manila to—			
Agutaya	Cuyos Group, Sulu Sea		238
	do	Via Mindoro Strait	262
Albay	Albay, North Luzón		414
	do	Via Straits of San Bernardino, Visayan Sea, and Verde passage.	606
Bacolod	Negros Occidental, Visayan Islands		308
	do	Via Guimarás Strait, Mindoro and China seas	515
Bacolor	Pampanga, North Luzón		35
Baguío	Benguet, North Luzón		143
Balábac	Balábac Group, Sulu Sea		441
Balániga	Bataán, North Luzón		29
Baler	Príncipe, North Luzón		90
Banguey	Abra, North Luzón		213
Batangas	Batangas, South Luzón		59
	do	Via Verde passage	111
Bató Lanao	Mindanao	Via Misamis	530
	do	Via Cotabato	591
Bayombong	Nueva Vizcaya, North Luzón		134
Binañgonan de Lampón.	Infanta, South Luzón		77
Birac	Catanduanes (Albay), Pacific Ocean, South Luzón		232
Boac	Marinduque Island, Mindoro Sea		97
Cagayán	Cagayán Sulu, Sulu Sea		540
Calapán	Mindanao		82
	do	Via Mindoro Sea	120
Cápiz	Cápiz Panay, Visayan Islands		242
	do	Via Verde passage	310
Catbalogan	Samar, Visayan Islands		328
	do	Via Seas of Sámar and Visaya and Verde Passage	395
Cayán	Lepanto, N. Luzón		170
Cavite	Cavite, S. Luzon	By bay	9
	do	Via all road	15
	do	Via road from Bacoor, opposite	13
Cebú	Cebú, Visayan Islands	Via Visayan Sea, Mindoro Sea, and Verde Passage	357
	do		466
Coron	Calamianes, China Sea		197
Cotabato	Cotabato, Mindanao	Via Celebes Sea, Basilan Strait, Sulu and Mindoro seas, Mindoro Strait, and China Sea	552
	do		748

Table of distances between Manila and Philippine Islands points—Continued.

Capital or chief town.	Province, group, or island.	Route.	Stat. m.
Cuyo	Cuyos Group, Sulu Sea		257
Dapitan	Dapitan, Mindanao		443
	.....do	Via Sulu and Mindoro seas, Mindoro Strait, and China Sea.	524
Dávao	Dávao, Mindanao		610
	.....do	Via Dávao Gulf, Sarangani and Basilan straits, Sulu Sea, Mindoro Strait, and China Sea.	995
Dumaguete	Negros Oriental, Visayan Islands		414
	.....do	Via Tañón Strait, Visayan and Mindoro seas, and Verde Passage.	518
Iba	Zambales, N. Luzón		84
Ilagan	Isabela, N. Luzón		71
Iloílo	Iloílo, Panay, Visayan Islands		297
	.....do	Via Iloílo and Mindoro straits	440
Isabela	Basilan Group, Mindanao, Sulu Sea		570
Laoag	Ilocos Norte, N. Luzón		211
Lingayén	Pangasinán, N. Luzón		112
Lucena	Tayabas, S. Luzón		64
	.....do	Via Verde Passage	165
Malolos	Bulacán, N. Luzón		20
Masbate	Masbate, Visayan Islands		235
Misamis	Mindanao		493
	.....do	Via Iligan Bay, Sulu Sea, Mindoro Strait, and China Sea.	569
Musa (Fuga Islands)	Babuyanes Group, Cagayán, N. Luzón (Pacific Ocean)		306
Nueva Cáceres	Ambos Camarines, S. Luzón		116
Pásig	Rizal, S. Luzón		7
Puerto Princesa	Palawan (Paragua), Sulu Sea		369
Romblón	Romblón, Visayan Islands		167
	.....do	Via Verde Passage	219
Santo Domingo de Basco	Batanes, Cagayán, N. Luzón (Pacific Ocean)		410
San Fernando	Unión, N. Luzón		150
San Isidro	Nueva, Ecija, N. Luzón		52
San José	Corregidor, S. Luzón		27
San José de Buena Vista	Antique, Panay		276
Santa Cruz .....	.....do	Via Mindoro Strait	316
	Laguna, S. Luzón	Via Laguna de Bay and Pasig River	34
Sorsogón .....	.....do	Via Verde Passage	170
Sulu	Sulu Islands, Sulu Archipelago, Sulu Sea		236
	.....do	Via Surigao, Visayan, and Mindoro seas and Verde Passage	328
Surigao	Mindanao		595
	.....do	Via San Juanico Strait, Daram Passage, San Bernardino Strait, Mindoro Sea, and Verde Passage	459
Tacloban	Leyte, Visayan Islands		537
	.....do	Via Surigao, Visayan, and Mindoro seas and Verde Passage	360
Tagbilaran	Bohol, Visayan Islands		414
Tárlac	Tárlac, N. Luzón		388
Tatán	Tawi Tawi Islands, Sulu Archipelago, Sulu Sea		69
	.....do	Via Sulu, Mindoro, and China seas	685
Tuguegarao	Cagayán, N. Luzón		211
Vigan	Ilocos Sur, N. Luzón		210
Zamboanga	Mindanao		561
	.....do	Via Sulu, Mindoro, and China seas	585

Table of distances between Manila and commercial centers on lines of steam and sail communication.

[International routes: The figures represent the shortest navigable distances in nautical miles on the tracks of full-powered steam vessels to commercial centers named.]

From Manila to—	Naut. miles.
Acapulco, Mexico: To Honolulu (United States), 4,950; to Acapulco, 3,310.....	8,260
Adelaide, S. Australia. (See Port Darwin.)	666
Amoy, China	
Auckland, New Zealand: To Torres Strait, 2,032; to Sydney, 1,740; to Auckland, 1,284.....	5,056
(To Torres Strait, 2,032; to Auckland direct, 2,570)	4,602

Table of distances between Manila and commercial centers on lines of steam and sail communication—Continued.

From Manila to—	Naut. miles.
Bangkok, Siam.....	1,440
Batavia, Java, capital of the Dutch possessions in Asia:.....	
Via Singapore.....	1,386
Via Sulu and Celebes seas, Macassar Strait, Java Sea.....	1,560
Bouham Islands, Pacific Ocean (German) to Jaluit. [Thence to Honolulu, 2,098.].....	1,520
Brisbane, Queensland, Australasia: To Torres Strait, 2,032; to Brisbane, 1,260.....	3,292
Brito, Nicaragua, Central America, the Pacific entrance to the proposed Nicaragua inter-oceanic ship canal: To Guam, 1,506; to Brito, 7,260.....	8,766
Calcutta, Bengal, Hindustan, capital of the British Indian Empire: To Singapore, 1,386; to Calcutta, 1,630.....	3,016
Callao, Peru, South America: To Guam, United States, 1,506; to Pago Pago, Samoa, United States, 3,097; to Callao, 5,609.....	10,212
Canton, China: To Hongkong, China, 628; to Canton, 75.....	703
Caroline Islands (German), Pacific Ocean: To Guam, United States, 1,506; to Jamestown Harbor, 870.....	2,376
Chefu, China.....	1,580
Chemulph, Korea, seaport of Seoul, capital of Korea:.....	1,560
To Hongkong, 628; to Shanghai, 859; to Chemulph, 530.....	2,017
Fiji Islands, Levuka (British), Pacific Ocean: To Pelew, 1,020; to Levuka, 2,700.....	3,720
Finchau, China.....	720
Guam, Ladrones Islands, United States:.....	
Northern route.....	1,750
Southern route, via San Bernardino Strait.....	1,506
Hongkong, China (British).....	628
Honolulu, Pacific Ocean, United States:.....	
Northern route.....	4,950
Southern route, to Guam, 1,506; to Honolulu, 3,337.....	4,843
King Georges Sound, western Australia. (See Port Darwin.).....	
Kiungchau, Hainan (French).....	720
Kwandaung, Celebes Islands (Dutch).....	840
Macao, China (Portuguese).....	630
Marshall Islands, Pacific Ocean (German): To Guam, 1,506; to Marshall Islands, 1,620.....	3,126
Melbourne, Victoria, Australia. (See Port Darwin.).....	
Midway Islands, Pacific Ocean:.....	
To Guam, 1,506, to Midway Islands, 2,302.....	3,808
Nagasaki, Japan.....	1,365
New York:.....	
Via Cape of Good Hope and intermediate points: To Singapore, 1,386; to Batavia and Sunda Strait, 500; to Mauritius, 2,950; Mauritius to Cape of Good Hope, 2,290; Sunda Strait to Cape of Good Hope, 5,070; to St. Vincent, 3,896; to New York, 2,919—	
Via Mauritius.....	13,841
Via cape, direct.....	13,771
Via Cape Horn and intermediate points: To Guam, United States, 1,506; to Tutuila, 3,097; to Punta Arenas (Straits of Magellan, South America), 5,197; to Montevideo, 1,312; to Rio de Janeiro, 1,056 (to New York, 4,778); to Pernambuco, 745 (to New York, 3,696); to Barbados, 2,184 (to New York, 1,828); to St. Thomas, 446 (to New York, 1,428)—	
Via Rio de Janeiro, direct.....	16,946
Via Rio de Janeiro, St. Thomas, and intermediate points.....	16,971
Via proposed Nicaragua ship canal and intermediate points: To Guam, United States, 1,506; to Brito, Pacific outlet of proposed canal, 7,260; to Greytown, 160; to New York, 1,771.....	
To New Orleans, United States.....	10,697
Via proposed Panama ship canal and intermediate points: To Guam, United States, 1,506; to Panama, 7,200; to Colon (Aspinwall), 44; to New York, 1,981.....	
To New Orleans, United States.....	10,731
Via Suez Maritime Canal and intermediate points: To Singapore (Straits Settlements), 1,386; to Colombo, Ceylon, 1,560; to Aden, southern entrance to the Red Sea, 2,131; to Suez, 1,310; to Port Said, Mediterranean entrance to Suez Canal, 90; to Malta, 980; Suez Canal, to Brindisi, 940; to Marseilles, 1,537; to Gibraltar, 1,920; Gibraltar to New York, 3,204.....	
Papua:.....	11,601
New Guinea, Pacific Ocean (British), Port Moresby, on the S. coast, near lat. 95, lon. 147 E., to Torres Strait, 2,032; to Port Moresby, 540.....	2,572
New Guinea, Pacific Ocean (Dutch), to Sorong on W. coast, opposite Saluwaiti.....	2,362
New Guinea, Pacific Ocean (German), to Friederich Wilhelmshaven, the NE. coast.....	1,560
Pelew Islands (Koror Harbor, German).....	1,020
Pointianack, W. coast of Borneo (Dutch).....	1,080
Port Arthur, Manchuria (China-Russia).....	1,620
Port Darwin, N. coast of Australia (N. territory of S. Australia).....	1,692
To King Georges Sound, W. Australia, 2,100.....	3,792
To Adelaide, S. Australia, via King Georges Sound.....	4,832
To Melbourne, Victoria, via King Georges Sound.....	5,142
Port Townsend, Puget Sound, Washington, United States, to Yokohama, 1,680; to Port Townsend, 4,240.....	5,920
Saigon, Indo-China (French).....	930
Sundakan, N.E. coast Borneo (British).....	585
San Francisco, via San Bernardino Strait, to Guam, 1,506; to Honolulu, 3,337; to San Francisco, 2,100.....	6,943
San Francisco, via Yokohama, Japan, to Yokohama, 1,680; to San Francisco, 4,791.....	6,477
Surabaya, Java (Dutch), via Sulu and Celebes seas, Macassar Strait.....	1,320
Shanghai, China.....	1,080
Singapore. (Hongkong to Singapore, 1,400).	1,386

Table of distances between Manila and commercial centers on lines of steam and sail communication—Continued.

From Manila to—	Naut. miles.
Solomon Islands (Ugi Island, British) to Pelew Islands, Koror Harbor, 1,020; to Ugi, 1,920...	2,940
(Ugi to Sydney, Australia, 1,560.)	
Sydney, New South Wales, Australia (British):	
Via Torres Strait.....	3,772
Via Sydney to Wellington, New Zealand, 1,280.....	5,052
Taiwan Fu, Formosa, Japan.....	540
Tahiti, Society Islands, Pacific Ocean (French), to Guam, 1,506; to Pago Pago, Samoa, United States, 3,097; to Tahiti, 1,308.....	5,911
Tientsin, China:	
To Shanghai, 1,680; to Tientsin, 729.....	2,409
To Pekin, via Peiho River, 120.....	2,529
To Pekin, by road, 80.....	2,489
Via Nagasaki, Japan, to Nagasaki, 1,365; to Tientsin, 940.....	2,305
Torres Strait, Australia.....	2,032
Tutuila, Samoa, United States, to Guam, 1,506; to Pago Pago, Tutuila, 3,097.....	4,603
Valparaiso, Chile, South America, to Guam, United States, 1,506; to Pago Pago, Samoa, United States, 3,097; to Tahiti, 1,308; to Valparaiso, Chile, 4,310.....	10,221
Vladivostoc, E. Siberia, Amur terminus (Pacific) of the Siberian Railway, to Nagasaki, 1,311; to Vladivostoc, 699.....	2,010
Wake Island, United States:	
To Guam, United States, 1,506; to Wake Island, 1,140.....	2,646
To San Francisco, via Wake Island, to Wake Island, 2,646; to Honolulu, 2,197; to San Francisco, 2,100.....	6,943
Wellington:	
To Torres Strait, 2,032; to Sydney, Australia, 1,740; to Wellington, 1,280.....	5,052
To Torres Strait, 2,032; to Wellington, 2,580.....	4,612
Yokohama, Japan	1,680

UNITED STATES MILITARY OCCUPATION AND GOVERNMENT.

The following is a summary of events connected with the United States military operations of conquest and occupation in the Philippine Islands:

The act of Congress April 21, 1898, declared a state of war with Spain, followed two days later by a proclamation of the President calling for 125,000 volunteers. The same day the United States consul at Manila departed for Hongkong. About a week later (May 1) the Asiatic Squadron, United States Navy, destroyed the Spanish ships in Manila Bay. On May 3 Cavite arsenal was occupied from the American ships.

DEPARTMENT OF THE PACIFIC AND EIGHTH ARMY CORPS.

1898, MAY 16, MAJ. GEN. WESLEY MERRITT, U. S. A.

The insufficiency of force for a land attack necessitated the holding of Manila Bay and Cavite arsenal until troops could be transported from the United States.

On May 25 the First California and Second Oregon Volunteer Infantry, 5 companies of the Fourteenth United States Infantry, and a detachment of California Volunteer Artillery, Brig. Gen. T. M. Anderson, U. S. V., commanding, comprising 155 officers, 3,428 men, the advance expeditionary force, sailed from San Francisco, Cal., for Manila, arriving June 30. This was followed by other expeditions as rapidly as fitted out.

On June 21 the commanding officer of the U. S. S. *Charleston* received the formal surrender of Guam, an island of the Ladron group, 1,506 naut. m. E. of San Bernardino Strait, the S. route around Luzon, and a convenient port of call and coal for American transports passing between the United States and Manila by the Pacific route.

On July 7 the American squadron took formal possession of Isla Grande in Subig Bay, on the China seacoast, N. of Manila Bay entrance. The commander of the Department of the Pacific and Eighth Army Corps arrived at Cavite, Manila Bay, July 25.

After an ineffectual demand (August 7) upon the Spanish commander, now surrounded within the city by sea and land, a combined attack (August 13) forced the surrender of Manila and the authorities of Spain, leaving the United States master of the Philippine Islands.

A proclamation (August 14) from the Commanding General to the people of the Philippine Islands declared (1) the existence of war and destruction of Spanish authority; (2) assured protection in civil and religious affairs; (3) announced a government of military occupation and that municipal laws affecting private rights would be respected; (4) creating a provost-martial district for police regulation; (5) the port of Manila and others occupied by the United States were declared open to the commerce of all neutral nations in merchandise not contraband of war, and payment of duties at the time of importation; (6) extended protection to places devoted to religious worship, arts, science, education, and museums; (7) gave assurance of good will on the part of the Commanding General in pursuance of his appointment as military governor.

On August 15 general orders were issued for the assumption of civil government by the United States military authorities in the city of Manila and district of Cavite and making assignments of officers for that duty.

On August 16 the commander of the United States land forces of Manila received a cablegram from the President announcing the signature of a protocol of agreement (August 12, 1898), embodying in six articles the terms of a basis for the establishment of peace, declaring a cessation of hostilities, and that the United States would occupy and hold the city, bay, and harbor of Manila pending the conclusion of a treaty of peace which should determine the control, disposition, and government of the Philippine Islands.

The insurgents permitted to enter with the American troops on September 8 were ordered to withdraw from the entire city of Manila, its suburbs, and defenses. These orders after fruitless correspondence were obeyed, an exception being made in the districts of Paco and Pandacan south of the Pasig River.

UNITED STATES MILITARY GOVERNOR IN THE PHILIPPINE ISLANDS.

1898, AUGUST 28, MAJ. GEN. WESLEY MERRITT, U. S. A.

EIGHTH ARMY CORPS.

1898, AUGUST 28, MAJ. GEN. E. S. OTIS, U. S. V.

DEPARTMENT OF THE PACIFIC AND MILITARY GOVERNOR IN THE PHILIPPINE ISLANDS.

1898, AUGUST 29, MAJ. GEN. E. S. OTIS, U. S. V.

On October 7 the civil courts as they existed under Spain were permitted to resume subject to supervision of the interests of military occupation.

On October 10 the Commanding General for precautionary reasons ordered the insurgents from Paco, Pandacan, and other points established by survey to be within the city limits. This was reluctantly complied with on October 25 to points indicated by the Commanding General.

On October 14 the Eighth Army Corps was reorganized to conform to the requirements of the large force already concentrated at Manila, aggregating 641 officers and 15,058 men. This movement of men a distance of 6,943 m. by sea was accomplished without loss other than from natural causes and a smaller percentage than in private life.

The status maintained according to the terms of the protocol terminated in the complete establishment of United States authority under the treaty signed at Paris December 10, 1898.

SUPREME EXECUTIVE AUTHORITY.

THE PRESIDENT OF THE UNITED STATES OF AMERICA,

THEODORE ROOSEVELT,

Commander in Chief of the Army and Navy of the United States and of the militia of the several States when called into the actual service of the United States (Constitution of the United States, 1787, Article II, section 2), and administrator of the Constitution, laws, and treaties.

POWERS.—"All military, civil, and judicial powers necessary to govern the Philippine Islands, acquired from Spain by the treaties concluded at Paris on the tenth day of December, eighteen hundred and ninety-eight, and at Washington on the seventh day of November, nineteen hundred, shall, until otherwise provided by Congress, be vested in such person and persons and shall be exercised in such manner as the President of the United States shall direct, for the establishment of civil government and for maintaining and protecting the inhabitants of said islands in the free enjoyment of their liberty, property, and religion: *Provided*, That all franchises granted under the authority hereof shall contain a reservation of the right to alter, amend, or repeal the same.

"Until a permanent government shall have been established in said archipelago full reports shall be made to Congress on or before the first day of each regular session of all legislative acts and proceedings of the temporary government constituted under the provisions hereof; and full reports of the acts and doings of said government, and as to the condition of the archipelago and of its people, shall be made to the President, including all information which may be useful to the Congress in providing for a more permanent government: *Provided*, That no sale or lease or other disposition of the public lands or the timber thereon or the mining rights therein shall be made: *And provided further*, That no franchise shall be granted which is not approved by the President of the United States and is not in his judgment clearly necessary for the immediate government of the islands and indispensable for the interest of the people thereof, and which can not, without great public mischief, be postponed until the establishment of permanent civil government; and all such franchises shall terminate one year after the establishment of such permanent civil government.

"All laws or parts of laws inconsistent with the provisions of this act are hereby repealed." (An act making appropriation for the support of the Army for the fiscal year ending June 30, 1902, approved March 2, 1901.)

KINGS OF SPAIN SINCE THE PHILIPPINE ISLANDS FORMED PART OF THE MONARCHY, AFTER THEIR DISCOVERY BY HERNANDO DE MAGELLAN.

1521-1556.....	Charles I, grandson of Ferdinand V, of Castile, conqueror of Grenada and Navarre and King of all Spain, Emperor of Germany as Charles V 1519. Resigned both crowns and retired to a monastery in 1556.
1556-1598.....	Philip II.
1598-1621.....	Philip III.
1621-1665.....	Philip IV. At war with the Dutch and French and lost Portugal (1640).
1665-1700.....	Charles II. The last of the Austrian line.
1700-1724.....	Philip V. Duke of Anjou, grandson of Louis XIV, of France. Resigned.
1724-1724.....	Louis I. Died a few months after accession.
1721-1746.....	Philip V. Restored.
1746-1759.....	Ferdinand VI. The wise, liberal, and beneficent.
1759-1788.....	Charles III.
1788-1808.....	Charles IV. Abdicated in favor of his son. Forced to abdicate by Napoleon Bonaparte of France.
1808-1808.....	Ferdinand VII. Also forced by Napoleon of France to abdicate.
1808-1813.....	Joseph Bonaparte, brother of Napoleon of France. Forced to abdicate.
1813-1833.....	Ferdinand VII. Restored.
1833-1868.....	Isabella II. Deposed.
1868-1873.....	Amadeo I. Savoy. Abdicated.
1873-1874.....	The Republic. Founded February 11, 1873.
1874-1885.....	Alphonso XII, son of Isabella II.
1885-1886.....	Maria Mercedes Isabella replaced by her brother.
1886-1898.....	December 10. Alphonso XIII. Proclaimed May 17.

PRESIDENTS OF THE UNITED STATES OF AMERICA.

1898-1901.....	WILLIAM MCKINLEY, of Ohio.
1901.....	THEODORE ROOSEVELT, of New York.

DEPARTMENT OF WAR, ELIHU ROOT, SECRETARY,

Representative of the President of the United States in the administration of military and civil affairs in the Philippine Islands.

Foreign countries having consuls in the Philippine Islands January 1, 1902.

Country.	Residence.	Jurisdiction.	Rank.
Austria-Hungary	Manila	Philippine Islands	Consul.
Belgium	do	do	Do.
Chile	do	do	Do.
China	do	do	Consul-general.
Denmark	do	do	Consul.
France	do	do	Do.
Germany	Cebu	Cebu	In charge.
Great Britain	Manila	Philippine Islands	Consul.
	Cebu	Cebu	Vice-consul.
	Manila	Philippine Islands	Consul.
Italy	do	do	Do.
Japan	do	do	Vice-consul.
Liberia	do	do	Consul.
Mexico	do	do	Do.
Netherlands	do	do	Do.
Portugal	do	do	Do.
Russia	do	do	Acting vice-consul.
Spain	Illoilo	Illoilo	Consul.
Sweden and Norway	Manila	Philippine Islands	Consul-general.
Switzerland	do	do	Consul.
Uruguay	do	do	Do.

In terms Spain ceded to the United States the archipelago known as the Philippine Islands, and comprising the islands within the following line. (See Boundaries Philippine Islands.)

The United States to pay to Spain the sum of twenty million (20,000,000) dollars within three months after the exchange of the ratification of the Treaty. (Art. III.)

Upon the exchange of the ratifications of the Treaty, Spain to evacuate the Philippines and the island of Guam. (Art. V.)

The Treaty also contained capitulations of accession, cession, and concession, part of or incidental to transfer of jurisdiction, defining the status of individuals and rights closing out the dispossessed power.

(Ratifications advised by the Senate February 6, 1899; ratified by the President February 6; ratified by the Queen Regent of Spain March 9; exchanged at Washington April 11; proclaimed at Washington April 11, 1899.)

To remove any ground of misunderstanding growing out of the interpretation of Article III of the Treaty of Peace, under a treaty between the same contracting powers signed at Washington November 7, 1900, sole article Spain "relinquished to the United States any and all islands belonging to the Philippine Archipelago lying outside the lines described in that article, and particularly to the islands of Cagayan, de Sulu, and Sibutu, and their dependencies," and agreed "that they should be comprehended in the cession of the archipelago as fully as if they had been expressly included in within those lines." The amount paid by the United States was \$100,000.

The first event toward the restoration of commercial activity under United States jurisdiction, antedating even the first instructions of the President, was the receipt, December 13, by the military governor of

a petition signed by business men and firms at Iloilo (island of Panay), asking for American occupation and protection.

In response to this request fifteen days later (December 28), the first United States military expedition of occupation of the other islands sailed from Manila. Upon arrival off the Visayan city, in deference to a request representing the business interests, the city being in the hands of the insurgents and threatened with fire and pillage, a landing was postponed until February 11. The place, no longer tenable, was fired and evacuated. The United States troops took immediate possession. After several engagements in pursuit the country around Jaro and Molo was cleared of insurgents.

On December 28, 1898, the United States military governor proclaimed the instructions of the President of the United States of December 21, transmitted by cable by the Secretary of War, chiefly municipal law, to remain in force as far as applicable, and to be administered by ordinary tribunals presided over by the representatives of the people—the functions of civil and municipal government to be performed by persons chosen, as far as possible, "from the inhabitants of the island," and the management of public property, revenues, and transportation to be conducted under the military authorities until replaced by civil administration. In other particulars these instructions reiterated essentially the proclamation of August 14 as to rights and commerce, insuring to the Filipino people "in every possible way the full measure of individual rights and liberty, which is the heritage of a free people."

On January 20, 1899, in a communication to the Secretary of State, the President called attention to his communication of December 21, 1898, to the Secretary of War declaratory of "the necessity of extending the actual occupation and administration of the city, harbor, and bay of Manila to the whole of the territory acquired under the Treaty of Paris, December 10, 1898, and the consequent establishment of military government throughout the entire group."

Although the Treaty had not been ratified, the belief that it would be by the time of the arrival of commissioners at Manila, and to facilitate the extention of authority and the protection of the inhabitants led the President to name in the month of January, 1899, Jacob Gould Schurman, president; Rear Admiral George Dewey, U. S. N.; Maj. Gen. Elwell S. Otis, U. S. V.; Charles Denby, and Dean C. Worcester, a commission to that end. The civil members of this commission met at Washington on January 18 and received the President's instructions.

Pending the dissemination of these proclamatory assurances, on February 4, 1899, the insurgents ventured an attack on the American lines at Manila with, to the assailants, most disastrous results, followed by an immediate aggressive campaign, in which their towns were captured, their government demolished, and their forces scattered. This attack was pursued energetically, operations being forced beyond the foothills to the N.

The towns of the Philippine Islands were recognized as municipal corporations to be known as "municipios." The commanding officers of military districts were constituted for the time being governors of provinces, with powers and duties defined.

The district military commanders entered into the work with accustomed intelligence and zeal.

The complete collapse of the insurgent movement as an organized force was followed on June 21, 1900, by a "Notice of amnesty" to all persons then or at any time since February 4, 1899, in insurrection against the United States, who within 90 days from that date formally renounced all connection with such insurrection and subscribe to a declaration acknowledging and accepting the sovereignty of the United States in and over the Philippine Islands.

Where free from intimidation the submissions were large and increasing. The establishment of local government on United States models was accompanied by the introduction of the advantages of the machinery of national administration in the institution of post and money-order offices and the establishment of mail routes.

In the interests of commerce 6 ports of entry were opened, viz., on Manila (Luzón), Cebú (Cebú), Iloílo (Panay), Sulu (Sulu), Siassi (Sulu), and Zamboanga (Mindanao), two more than Spain had during 379 years of power, and 73 ports were opened to coastwise trade.

A general northward advance on the insurgent position (February 10) terminated in the capture of Malolos, their second (March 31), and San Isidro, their third capital, a few days later.

It was during this campaign that the first municipal election in the Philippines took place, in May, 1899, after the rout of the insurgents at Balíuag, Bulacán, by General Lawton giving verbal permission, in response to a public petition, for a meeting in the plaza to choose a "captain municipal," or mayor, to administer the civil affairs of the town and represent the interests of the forces occupying the places. The result was announced and obedience commanded in G. F. O., No. 8, First Division, Eighth Army Corps, near Balíuag, May 7, 1899, in English, Spanish, and Tagálog.

In July of the same year Parañaque, Los Piñas, Bacoor, and Lucus elected mayors under military protection.

To meet the rapidly developing situation in the south, G. O., No. 8, Headquarters Department Pacific and Eighth Army Corps, Manila, P. I., March 1, 1899, created the Visayan Military District, headquarters Iloílo, Panay, to comprise the islands of Panay, Negros, and Cebú, and such other Visayan islands as might be thereafter designated, the troops to furnish all possible protection, maintaining peace and order while administering civil affairs throughout the islands on lines prescribed by the military government. Subdistricts were formed, with headquarters at Bacólod, Negros Occidental. This expedition left Manila March 2 and arrived at Bacólod a few days after, from which point operations were conducted in conjunction with operations from Iloílo.

The same month a military governor was assigned to the island of Negros with instructions to aid the people in their efforts to establish a civil government. A native police was organized. Delegates met (July) in constitutional convention, after the American method, and framed a constitution which was submitted to the military governor at Manila who transmitted it to the President. This "constitution or body of fundamental laws," upon which the people of Negros sought "to have established for themselves a republican form of government," was promulgated in G. O., No. 30, military governor of the Philippine Islands, Manila, July 22, 1899.

Pending action by the President and Congress "the constitution" was set in motion tentatively by the appointment of a military governor to command the troops and a civil governor for provincial and

municipal purposes; the election of an advisory council by the people, and appointment of secretaries of the treasury, interior, agriculture, and public instruction, an attorney-general and auditor, by the military governor (general). The details of organization and powers of local administration were specified with Bacolod as the capital.

The commission appointed by the President under instructions of December 21, 1899, began their labors at Manila in March by issuing a proclamation (April 4) declaring:

1. Supremacy of the United States and its enforcement if necessary.
2. Self-government compatible with sovereign rights and obligations of the United States.
3. Civil and religious rights and equality before the law.
4. Honor and justice forbade the exploitation of the people of the island.
5. Guarantee of effective civil service and natives to be employed as far as practicable.
6. Honest collection and application of taxes and other revenues to be applied to the establishment and maintenance of the Philippine government and general improvements in the interests of the public.
7. An honest, prompt, and effective administration of justice.
8. Construction of ways of communication and transportation and other public works for the benefit of the people.
9. Trade and commerce, domestic and foreign, and other industries, to receive fostering care.
10. The establishment of public schools with facilities for higher education.
11. Reforms in all departments of the government, public service, and corporations closely touching the common life of the people.

This commission collected a mass of testimony from the class of natives whose interests demanded a strong authority in the affairs of the archipelago, and from business men of eight nationalities. It was recalled in the following September and submitted, a preliminary report to the President on November 2.

The commanding officers of troops on the railway line in G. O., August 8, series 1899, received instructions to establish temporary civil government in the adjacent towns occupied by the United States.

This provided for each town a municipal council composed of a president and representatives or headman for each ward or barrio, charged with the maintenance of order and the regulation of municipal affairs, as specified under the supervisory approval of the commanding officer of the station.

On May 19, a United States garrison relieved the Spanish troops, 800 strong, at Sulu, in that archipelago. As a result of negotiations which followed an agreement was reached on August 20, 1899, at that point acknowledging, by the local sultan, the supreme sovereignty of the United States over the whole Sulu Archipelago.

This agreement and accompanying papers forwarded to the President was transmitted to Congress. (Senate Doc. No. 136, Fifty-sixth Congress, first session.)

The army of occupation, reinforced by 30,000 men and favored by the dry season, by the close of the campaign of 1899 had cleared up central Luzón, captured the insurgent congress and government, excepting its so-called president, who had taken to flight, and was being pursued. On December 11, 1899, the President directed the opening of Philippine ports to commerce.

In furthering the substantial advance made in local municipal government, in G. O., January 29, 1900, the military governor created a board "to formulate and report a plan of municipal government to meet the requirements of the municipios of the islands prepared to adopt representative control over their own civil affairs."

This board was composed of native, civic, and military ability and experience. The result of their deliberations was the preparation of "A plan for municipal government in the Philippine Islands," promulgated in G. O., No. 40, March 29, 1900, in which the military governor congratulated the Filipino people upon being in position for the first time in the history of the islands to exercise the right of suffrage in the election of municipal officers.

This order covered the whole field, the city of Manila excepted, in detail, and constituted the essential foundation of municipal government as subsequently elaborated.

In order to more fully carry out the President's instructions of December 21, 1898, respecting the occupation of the territory within the boundaries defined by the treaty, the entire archipelago was constituted a military division with departmental and district subdivisions for military control, tactical movements, and civil administration, as follows:

DIVISION OF THE PHILIPPINES.

HEADQUARTERS, MANILA, P. I.

Created: 1900, March 29, General Orders, No. 36, Headquarters of the Army, under orders issued from the War Department, March 27, 1900.

Territory: To comprise all the islands ceded to the United States by Spain by the treaty of Paris, ratified April 11, 1899. Maj. Gen. E. S. Otis, commanding.

Departments: N. Luzón, S. Luzón, Visayas and Mindanao, and Joló (Sulu).

Limits: Of departmental and district commands as follows:

DEPARTMENT OF NORTHERN LUZÓN.

HEADQUARTERS MANILA, LUZÓN.

[Embracing all that portion of the island of Luzón lying to the N. of the Pásig River and the provinces of Mórong and Infanta, together with all the Philippine islands lying N. of those lines, excepting the Calagwas group.]

FIRST DISTRICT.—Headquarters, Vigan, Ilocos Sur, Luzón. Embracing provinces of Abra, Bontoc, Benguet, Lepanto, Ilocos Sur, Ilocos Norte, and Unión, island of Luzón.

SECOND DISTRICT.—Headquarters, Aparri, Cagayán, Luzón. Embracing provinces of Cagayán, Isabela, and Nueva Vizcaya, island of Luzón.

THIRD DISTRICT.—Headquarters, Dagupan, Pangasinán, Luzón. Embracing provinces of Zambales, Pangasinán, and Tárlac, island of Luzón.

FOURTH DISTRICT.—Headquarters, San Isidro, Nueva Écija, Luzón. Embracing provinces of Nueva Écija and Príncipe, island of Luzón.

FIFTH DISTRICT.—Headquarters, Angeles, Pampanga, Luzón. Embracing provinces of Bataán, Pampanga, and Bulacán, island of Luzón.

SIXTH DISTRICT.—Headquarters, Depósito, San Juan del Monte, Manila, Luzón. Embracing all that part of the province of Manila lying N. of the Pásig River, and the province of Mórong.

UNITED STATES ARMY GUNBOATS.—Charleston, Napindan.

DEPARTMENT OF SOUTHERN LUZÓN.

HEADQUARTERS MANILA, LUZÓN.

[Embracing that portion of Luzón lying S. of the Pásig River and of the S. boundaries of the provinces of Mórong and Infanta, and all the Philippine islands situated to the S. of those lines and N. of the lines passing SE. through the W. Pass of Apo to the twelfth parallel of latitude; thence on said parallel to meridian 124° 19' E. of Greenwich; thence in a N. direction through the Straits of San Bernardino, along S. line of channel of those straits; also all of the islands of Masbate and Samar.]

FIRST DISTRICT.—Headquarters, Santa Ana, province of Manila, Luzón. Embracing the province of Cavite, those portions of the provinces of Laguna and Batangas included within the limits described: From the junction of the boundary line of the province of Cavite, and the Laguna de Bay, along the S. shore of the Laguna de Bay to the mouth of the San Cristóbal River; and to the following boundary line from

that point: Up the San Cristóbal River to its source; thence SW. to the boundary line between Cavite and Batangas province; thence along this boundary line to a point due N. of Caloocan on N. shore of Lake Taal; thence S. to Batangas Bay—this last line diverting to the E. at its first intersection with Volcan Island (Lake Taal), and following the shore line of that island instead of crossing it. That portion of Manila lying S. of the Pásig River, the city of Manila excepted.

SECOND DISTRICT.—Headquarters, Calamba, Laguna, Luzón. Embracing provinces of Tayabas, Infanta, and those portions of the provinces of Laguna and Batangas not included in the first district; island of Luzón and the island of Polillo.

THIRD DISTRICT.—Headquarters, Nueva Cáceres, Camarines Sur, Luzón. Embracing provinces of Albay, Camarines Norte, Camarines Sur, and Sorsogón, island of Luzón, and the island of Catanduanes, also the Calaguas Islands.

FOURTH DISTRICT.—Headquarters, Catbalogan, island of Sámar. Embracing the islands of Mindoro, Tablas, Marinduque, Masbate, and all islands N. and W. of same to the Pass of Apo and the S. limit of Luzón and island of Sámar.

UNITED STATES ARMY GUNBOATS.—*Florida*, *Laguna de Bay*, and *Oeste*.

DEPARTMENT OF THE VISAYAS.

HEADQUARTERS AT ILOÍLO, ISLAND OF PANAY.

[Bounded on the N. by S. limits of Department of Southern Luzón, on the W. by lon. 121° 45' E. of Greenwich, on the S. by the ninth parallel of lat., and extending E. to include those islands of the Philippine group lying between the N. and S. lines herein described, but excluding all the island of Mindanao and all islands east of the Straits of Surigao.]

FIRST DISTRICT.—Headquarters, Tacloban, Leyte. Embracing the island of Leyte.

SECOND DISTRICT.—Headquarters, at Cebú, Cebú. Embracing the islands of Bohol and Cebú.

THIRD DISTRICT.—Headquarters, Bacolod, Negros. Embracing the island of Negros.

FOURTH DISTRICT.—Headquarters, Jaro, Panay. Embracing the island of Panay.

DEPARTMENT OF MINDANAO AND JOLÓ.

HEADQUARTERS AT ZAMBOANGA (TEMPORARILY AT CAGAYÁN DE MISAMIS), ISLAND OF MINDANAO.

[Embracing all islands of the Philippine group not included in the territorial boundaries of the departments above designated and described.]

FIRST DISTRICT.—Headquarters, Cagayán de Misamis, Mindanao. Embracing islands of Camiguín, Dinágat, and Siargao, and that portion of Mindanao N. of the eighth parallel of latitude.

SECOND DISTRICT.—Headquarters, Zamboanga, province of Zamboanga, Mindanao. Embracing the islands of Basilan and Sarangani and that portion of Mindanao S. of the eighth parallel of latitude.

THIRD DISTRICT.—Headquarters, Joló (Sulu), island of Joló (Sulu). Embracing the Joló (Sulu) Archipelago.

FOURTH DISTRICT.—Embracing islands of Balábac, Paragua (Palawan), and Calamianes.

DIVISION OF THE PHILIPPINES AND UNITED STATES MILITARY GOVERNOR IN THE PHILIPPINE ISLANDS.

1900, MAY 5. MAJ. GEN. ARTHUR MACARTHUR, U. S. A.,
COMMANDING.

In their council of war at Bayambang about November 12, 1899, the Filipino military leaders, admitting themselves incapable of further resistance, formally disbanded their field forces and occupied a series of strong defensive positions from which to present enough resistance to force the American army to a constant repetition of tactical deployments. The expediency of adopting guerrilla warfare was considered by the native leaders from the beginning. The formation of a field army conducting regular operations was for political effect by demonstrating a capacity for organization and self-government. Therefore

their action in the council of Bayambang was simply a transition from one form of action to another.

The superiority of the American forces having been demonstrated, on June 5, 1900, the military governor recommended a general and complete amnesty, the issue of which was ordered by the President and promulgated on the 21st of the same month. This, together with the memorandum of July 2, 1900, revealed to the natives the beneficent spirit of American institutions and the determination of the United States to establish essentially a republican form of government attended with the largest amount of liberty. This amnesty expired on September 21, without producing the desired effect.

The native leaders, acting on the principle that every native in the archipelago owed allegiance to the insurgent cause and any sympathy with the Americans was deserving of severest penalties, began a systematic course of persecutions.

By means of secret committees in and out of the towns contributions were collected and capital punishments administered, to which the people submitted as a legitimate part of insurgent authority.

An entirely new plan of campaign was therefore determined upon, preliminary to which a proclamation was issued December 20, 1900, by the military governor, calling attention to the frequent violations of the laws of war, reminding all concerned of their existence, that exemplary punishments attached to the infringement thereof, and that their strict observance "was" required not only by combatant forces but as well by noncombatants, native or alien, residing within occupied places.

The provisions of the laws of war most essential for consideration were set forth under four heads. Special instructions were issued to the provost-marshal-general as applied to Manila.

The proclamation was well received by the Filipino people. In order to emphasize the efficacy of the new order of things under G. O., No. 4, Manila, January 7, 1901, by authority of the War Department, December 27, 1900, certain general field and subordinate insurgent officers, besides civil, official, insurgent agents, sympathizers, and agitators were deported to the island of Guam to be held under surveillance or in actual custody until a public declaration of cessation of hostilities.

As a result of cooperation between the army and the people who accepted the invitation to continue for mutual protection and the welfare of the country, armed insurrection, excepting in Sámar and several provinces in Southern Luzón, ceased.

DIVISION OF THE PHILIPPINES.

JULY 4, 1901. MAJ. GEN. ADNA R. CHAFFEE, U. S. A.

HEADQUARTERS, MANILA, LUZÓN, P. I.

By direction of the President, the Departments of Northern and Southern Luzón, of the Visayas, and the Mindanao and Joló (Sulu) were discontinued on November 30, 1901 (G. O., No. 148, Series 1901, War Department), and on and after that date the DIVISION OF THE PHILIPPINES was composed of the following departments and separate brigades.

DEPARTMENT OF NORTH PHILIPPINES.

HEADQUARTERS, MANILA, LUZÓN, P. I.

Including all that portion of the Philippine Archipelago lying N. of a line passing (southeastwardly) through the W. Pass of Apo, or Mindoro Strait, to the twelfth parallel of N. lat., thence E. along said parallel to 124° 10' E. of Greenwich, but including the entire island of Masbate, thence N. to San Bernardino Straits.

First separate brigade.—Headquarters, Dagupan, Pangasinán, Luzón; embracing provinces of Abra, Benguet, Bontoc, Cagayán, Ilocos Norte, Ilocos Sur, Isabela, Lepanto, Nueva Vizcaya, Pangasinán, and Unión, Luzón.

Second separate brigade.—Headquarters, San Fernando, Pampanga, Luzón; embracing provinces of Bataán, Bulacán, Nueva Ecija, Pampanga, Rizal (N. of Pásig), Príncipe, Tárlac, Zambales, and Infanta (except Isla Polillo), Luzón.

Third separate brigade.—Headquarters, Batangas, Batangas, Luzón; embracing provinces of Rizal (S. of Pásig), Laguna, Tayabas (W. of a N. and S. line through Atimonan), Batangas, and Cávite, islands of Tablas, Romblón, and Sibuyán (Romblón group); Marinduque, Mindoro, and all adjacent islands.

Fourth separate brigade.—Headquarters Nueva Cáceres, Camarines Sur, Luzón; embracing provinces of Tayabas (E. of a N. and S. line through Atimonan, and including that town), Camarines Norte, Albay, Camarines Sur, and Sorsogón, Luzón; islands of Masbate, Burias, Polillo, Ticao, Catanduanes, and all adjacent islands.

Post of Manila.—Manila, Luzón; embracing the city of Manila, beginning at the Boca de Vitas, the line follows Maypajo Creek until it reaches the line of the Lico road produced, thence along said line and road to Lico, thence to the junction of the two roads in front of the Chinese hospital, thence along the road in front of said hospital to the N. corner of the hospital wall, thence to blockhouse No. 4, thence by blockhouses Nos. 5, 6, and 7 to San Juan del Monte Creek at the Aqueduct bridge, thence down said creek and up the river Pásig to the mouth of Concordia Creek, thence by Concordia and Tripa de Gallinas creeks to a point opposite where road from Cingalong to Pineda (Pasay) turns sharply to the right, including Pasay cavalry barracks, thence by the road to Maitúbig, and thence to the mouth of Malate Creek.

Gunboats in department.—*Charleston*, Laguna de Bay; *Napindan*, Laguna de Bay; *Portland*, Lake Taal; *Florida*, temporary duty in Department South Philippines; *Lexington*, Lake Taal; *Cleveland*, Maligi I.

DEPARTMENT OF SOUTH PHILIPPINES.

HEADQUARTERS, CEBÚ, CEBÚ, P. I.

Embracing all that portion of the Philippine Archipelago lying S. of the dividing line described for the S. boundary of the Department of North Philippines.

Fifth separate brigade.—Headquarters, Iloílo, Panay; embracing Panay, Negros, Cebú, Bohol, and all adjacent islands.

Sixth separate brigade.—Headquarters, Tacloban, Leyte; embracing Leyte, Samar, and all adjacent islands.

Seventh separate brigade.—Headquarters, Zamboanga, Mindanao; embracing Mindanao, Joló (Sulu) group, Paragua (Palawan), Calamianes group, and all adjacent islands.

Stations of troops, Philippine Islands.

[Under the distribution of troops January 1, 1902, there were 492 military stations. Under the dispositions of February 15, 1902, there are 332 stations, a reduction of 160. N. P.—Department of North Philippines; S. P.—Department of South Philippines; towns in capital letters are the capitals of the provinces, islands, or districts.]

Station.	Province, civil or military.	Island.	Department.
Abra de Ilog	Mindoro	Mindoro	N. P.
Abüting	Cagayán	Luzón	N. P.
Ajui ^b	Concepción	Panay	S. P.
Alamino	Laguna	Luzón	N. P.
Alamino ^a	Zambales	do	N. P.
Alatgalang	Leyte	Leyte	S. P.
ALBAY ^b	Albay	Luzón	N. P.
Alecula ^a	Cagayán	do	N. P.
Aloran ^b	Misamis	Mindanao	S. P.
Ambulong	Batangas	Luzón	N. P.
Angadanan	Isabela	do	N. P.
Angat ^b	Bulacán	do	N. P.
Angeles ^a ^c	Pampanga	do	N. P.
Antipolo ^b	Rizal	do	N. P.
Aparri ^a ^c	Cagayán	do	N. P.
Alfonso XIII	Paragua (Palawan)	Paragua (Palawan)	S. P.
Aráyat ^a	Pampanga	Luzón	N. P.
Argao ^a	Cebú	Cebú	S. P.
Antimonan (Atimonan) ^a	Tayabas	Luzón	N. P.
Bacón	Sorsogón	do	N. P.
BACOLOD ^a	Negros Occidental	Negros	S. P.
Balangiga	Sámar	Sámar	S. P.
Balamban ^b	Cebú	Cebú	S. P.
Balayan ^b	Batangas	Luzón	N. P.
BALER	Príncipe	do	N. P.
Balinag ^b	Bulacán	do	N. P.
Baluigao	Pangasinán	do	N. P.
Bamate ^b	Iloilo	Panay	S. P.
Baraen ^b	Leyte	Leyte	S. P.
Barayong	Sámar	Sámar	S. P.
Busey ^b	do	do	N. P.
BATANGAS ^a ^c	Batangas	Luzón	N. P.
Bautista ^a ^c	Pangasinán	do	N. P.
Bauan ^b	Batangas	do	N. P.
Biyambang ^a ^c	Pangasinán	do	N. P.
Biyab ^b	Leyte	Leyte	S. P.
Bay ^b	Laguna	Luzón	N. P.
Binalonan	Pangasinán	do	N. P.
Binalóngon	Rizal	do	N. P.
Biñan ^a	Laguna	do	N. P.
Blanca Aurora	Sámar	Sámar	S. P.
Boac ^a	Marinduque	Marinduque	N. P.
Bobón	Sámar	Sámar	S. P.
Bogo	Cebú	Cebú	S. P.
Bolínao ^b	Zambales	Luzón	N. P.
Bonigao	Tawi Tawi	Joló (Sulu Archipelago)	S. P.
Bonigong	Nueva Ecija	Luzón	N. P.
Boróigán	Sámar	Sámar	S. P.
Bugasón ^a	Antíque	Panay	S. P.
BULACÁN ^a	Bulacán	Luzón	N. P.
Cabancalan ^a	Nueva Ecija	do	N. P.
Cabancalan ^a	Negros Occidental	Negros	S. P.
Cabuyao ^a	Laguna	Luzón	N. P.
Cadlón (Catmón)	Cebú	Cebú	S. P.
Calabóngga (Calabániga) ^b	Ámbos Camarines	Luzón	N. P.
Calacé ^b	Batangas	do	N. P.
Calamiba ^a ^c	Laguna	do	N. P.
CALAPAN ^a	Mindoro	Mindoro	N. P.
Calape ^a	Bohol	Bohol	S. P.
Calbayog ^a	Sámar	Sámar	S. P.
Calbiga	do	do	S. P.
Calingao ^b	Ilocos Sur	Luzón	N. P.
Calivo ^a	Cápiz	Panay	S. P.
Calumpit ^a ^c	Bulacán	Luzón	N. P.
Caloocan ^a ^c	Rizal	do	N. P.
Camiling (Camálg) ^a	Albay	do	N. P.
Camilig	Tárlac	do	N. P.

^a Telegraph stations.

^b Telephone stations.

^c Postal money-order office.

Stations of troops, Philippine Islands—Continued.

Station.	Province, civil or military.	Island.	Department.
Capalonga	Ambos Camarines	Luzón	N. P.
Candelaria ^a	Tayabas	do	N. P.
Capas ^a	Tárlac	do	N. P.
CAPIZ ^b	Cápiz	Panay	S. P.
Capul	Capul	Sámar	S. P.
Caranian	Súmar	do	S. P.
Carig	Isabela	Luzón	N. P.
Castillejos	Zambales	do	N. P.
Catanaan	Tayabas	do	N. P.
CATBALOGAN ^a	Sámar	Sámar	S. P.
Catúbig	do	do	S. P.
Catarmán	do	do	S. P.
Canaway ^a	Isabela	Luzón	N. P.
Cavinti	Laguna	do	N. P.
CEBU ^a	Cebú	Cebú	S. P.
CERVANTES ^b	Lepanto	Luzón	N. P.
Cervantes	Sámar	Sámar	S. P.
Colasí ^a	Antique	Panay	S. P.
Concepción	Iloilo	do	S. P.
Cordón	Isabela	Luzón	N. P.
COTTABATO (Cotabato) ^a	Cotabato	Mindanao	S. P.
Cucina	Batangas	Luzón	N. P.
Currimao ^b	Ilocos Norte	do	N. P.
Cayapó (Cuyapó) ^b	Nueva Ecija	do	N. P.
Dáet	Ambos Camarines	do	N. P.
Dagupan ^a	Pangasinán	do	N. P.
Danao	Negros	Negros	S. P.
Danao ^b	Cebú	Cebú	S. P.
DAPITAN	Dapitan	Mindanao	S. P.
Daraña ^b	Albay	Luzón	N. P.
Dasmariñas ^a	Cavite	Luzón	N. P.
Daso ^a	Zambales	do	N. P.
DAVAO	Dávao	Mindanao	S. P.
Dingris ^b	Ilocos Norte	Luzón	N. P.
Donsol	Sorsogón	do	N. P.
Dúleg (Dúlag) ^a	Leyte	Leyte	S. P.
DUMAGUETE ^a	Negros Oriental	Negros	S. P.
Dumanjug	Cebú	Cebú	S. P.
Echagüe	Isabela	Luzón	N. P.
Erenas	Sámar	Sámar	S. P.
Gasán ^b	Marinduque	Marinduque	N. P.
Gerona ^a	Tárlac	Luzón	N. P.
Guian	Sámar	Sámar	S. P.
Guinayañgan ^a	Tayabas	Luzón	N. P.
Guindulmán	Bohol	Bohol	S. P.
Guinobatan ^a	Albay	Luzón	N. P.
Hagonoy ^b	Bulacán	do	N. P.
Haquimít ^a	Negros	Negros	S. P.
Humining ^a	Pangasinán	Luzón	N. P.
IBA ^a	Zambales	do	N. P.
Ibaán	Batangas	do	N. P.
Igbarrás (Igbáras) ^b	Iloilo	Panay	S. P.
ILAGAN ^a	Isabela	Luzón	N. P.
Ilagan	Cagayán	do	N. P.
Iligan ^a	Misamis	Mindanao	S. P.
ILÓILO ^{a,c}	Iloilo	Panay	S. P.
Imus ^b	Cavite	Luzón	N. P.
Indán ^a	Ambos Camarines	do	N. P.
Isabela ^a	Negros Occidental	Negros Occidental	S. P.
ISABELA ^b	Basilan	Basilan	S. P.
Jaro ^b	Iloilo	Panay	S. P.
Jaro ^a	Leyte	Leyte	S. P.
Jiabong	Sámar	Sámar	S. P.
Jiménez ^b	Misamis	Mindanao	S. P.
Joló (Sulu) ^{a,c}	Joló (Sulu)	Joló (Sulu) Archipelago	S. P.
LaCarlota (Simancas) ^a	Negros Occidental	Negros	S. P.
La Castellana ^a	do	do	S. P.
La Granja	Sámar	Sámar	S. P.
Laguna	do	do	S. P.
Laguimanoc	Tayabas	Luzón	N. P.
Lambunao	Iloilo	Panay	S. P.
LAOAG ^{b,c}	Ilocos Norte	Luzón	N. P.
Laong Beach	do	do	N. P.
Lanang	Sámar	Sámar	S. P.
Lavezares	do	do	S. P.
Legaspi ^{a,c}	Albay	Luzón	N. P.
Legatic	Antique	Panay	S. P.
Libmanán ^b	Ambos Camarines	Luzón	N. P.
Light-House	Balábac	Balábac	S. P.
Liloan ^a	Cebú	Cebú	S. P.

^a Telegraph stations.^b Telephone stations.^c Postal money-order office.

Stations of troops, Philippine Islands—Continued.

Station.	Province, civil or military.	Island.	Department.
Lilio ^a	Laguna	Luzón	N. P.
Lingayén ^a	Pangasinán	do	N. P.
Lipa ^a	Batangas	do	N. P.
Loboc ^a	Bohol	Bohol	S. P.
Loboc ^a	Bohol	Bohol	S. P.
Loon ^a	Batangas	Luzón	N. P.
López ^a	Tayabas	Luzón	N. P.
Los Baños ^a	Laguna	do	N. P.
Lubcán ^b	Tayabas	do	N. P.
Luceo ^a ^c	do	do	N. P.
Luisiana ^b	Laguna	do	N. P.
Lupi ^a	Ambos Camarines	do	N. P.
Mácar ^a	Dávao	Mindanao	S. P.
Maasin ^b	Ililo	Panay	S. P.
Maasin ^a	Leyte	Leyte	S. P.
Macabato ^a	Calamianes group	Bustanga	S. P.
Magárao ^a	Ambos Camarines	Luzón	N. P.
Magdalena ^c	Laguna	do	N. P.
Majayjay ^b	do	do	N. P.
Mulabang ^a	Cotabato	Mindanao	S. P.
Malabón ^a ^c	Rizal	Luzón	N. P.
Mambulao ^a	Ambos Camarines	do	N. P.
Mangarin ^a	Mindoro	Mindoro	N. P.
MANILA ^a ^b ^c	Rizal	Luzón	N. P.
Calle Gral. Solano, No. 348, ^a ^b			
Camp Wallace (Luneta), ^b			
Camp Santa Mesa, ^b			
Cuartel de España.			
Cuartel de Infantería, ^a ^b			
Cuartel Meisic.			
Estado Mayor, ^b			
Exposition barracks.			
Fort Santiago.			
Malate barracks.			
Pasay cavalry barracks, ^a ^b			
Paseo de Bagumbayan.			
Trozo barracks.			
Maragondón ^b	Cavite	do	N. P.
Mariquinas ^b	Rizal	do	N. P.
Mariveles	Bataán	do	N. P.
MASBATE ^a	Masbate	Masbate	N. P.
Mastinlos ^a	Zambales	Luzón	N. P.
Mutnog ^a	Sorsogón	do	N. P.
Maubán ^a	Tayabas	do	N. P.
Maubo ^a	Sámar	Sámar	S. P.
Minalábag ^b	Ambos Camarines	Luzón	N. P.
Misamis ^a ^c	Misamis	Mindanao	S. P.
Moncada ^b	Tárlae	Luzón	N. P.
Montalbán ^b	Rizal	do	N. P.
Móngron ^b	do	do	N. P.
Muntinlupa ^b	do	do	N. P.
Mutiñong ^a	Sámar	Sámar	S. P.
Naga ^a	Cebú	Cebú	S. P.
Nagcarlang (Nacarlang) ^b	Laguna	Luzón	N. P.
Nale (Naig) ^a	Cavite	do	N. P.
Nasngbú ^b	Batangas	do	N. P.
Nauján ^a	Mindoro	Mindoro	N. P.
Norzagarray ^b	Bulacán	Luzón	N. P.
NUEVA CÁCERES ^a	Ambos Camarines	do	N. P.
Oráis ^a	Sámar	Sámar	S. P.
Ormoc ^a	Leyte	Leyte	S. P.
Ostloba ^a	Cebú	Cebú	S. P.
Paete ^b	Laguna	Luzón	N. P.
Pagbilao ^a	Tayabas	do	N. P.
Pagsanjan ^b	Laguna	do	N. P.
Palanít ^a	Sámar	Sámar	S. P.
Palanquí ^a	Albay	Luzón	N. P.
Palápag (Palápag)	Sámar	Sámar	S. P.
Palaúan (Palaúan)	Mindoro	Mindoro	N. P.
Pambujan Norte ^a	Sámar	Sámar	S. P.
Pamplona ^a	Ambos Camarines	Luzón	N. P.
Paniquí ^b	Tárlae	do	N. P.
Pansanjan ^a	Sámar	Sámar	S. P.
Pantabangán ^a	Nueva Écija	Luzón	N. P.
Páooy ^a	Ilocos Norte	do	N. P.
Paracale ^a	Ambos Camarines	Mindanao	S. P.
Parang Parang ^a	Ambos Camarines	Luzón	N. P.
Pasacao ^a	do	do	N. P.
Parasologa ^a	Sámar	Sámar	S. P.
Paranus (Paramus) ^a	Rizal	Luzón	N. P.

* Telegraph stations.

* Telephone stations.

* Postal money-order office.

Stations of troops, Philippine Islands—Continued.

Station.	Province, civil or military.	Island.	Department.
Payao	Negros Occidental	Negros	S. P.
Peñaranda ^b	Nueva Ecija	Luzón	N. P.
Pila ^b	Laguna	do	N. P.
Pili ^a	Ambos Camarines	do	N. P.
Pinamalayan	Mindoro	Mindoro	N. P.
Pitogo	Tayabas	Luzón	N. P.
Pola ^a	Mindoro	Mindoro	N. P.
Polloc ^b	Cotabato	Mindanao	S. P.
Pototan ^a	Iloílo	Panay	S. P.
Pozorrubio ^b	Pangasinán	Luzón	N. P.
Puerto Galera	Mindoro	Mindoro	N. P.
PUERTO PRINCESA	Paragua (Palawan)	Paragua (Palawan)	S. P.
Puló, Maligí I	Laguna de Bay	Luzón	N. P.
Quinapindan	Sámar	Sámar	S. P.
Quíñiguá ^b	Bulacán	Luzón	N. P.
Quintigan I	Sámar	Sámar	S. P.
Ragay	Ambos Camarines	Luzón	N. P.
ROMBLÓN	Romblón	Romblón	N. P.
Rosales ^a	Pangasinán	Luzón	N. P.
Sabang	Ambos Camarines	do	N. P.
Salcedo	Sámar	Sámar	S. P.
Salomague ^b	Ilocos Sur	Luzón	N. P.
Sampoloc ^a	Tayabas	do	N. P.
San Antonio ^a	Zambales	do	N. P.
San Bernardino, L. H.	Sorsogón	do	N. P.
San Emilio	Lepanto	do	N. P.
San Esteban	Ilocos Sur	do	N. P.
San Fabián ^b	Pangasinán	do	N. P.
San Felipe ^a	Zambales	do	N. P.
San Felipe Neri (San Felipe Nery) ^a	Rizal	do	N. P.
San Fernando ^{a,c}	Pampanga	do	N. P.
SAN FERNANDO ^{a,c}	Unión	do	N. P.
San Fernando ^b	Ambos Camarines	do	N. P.
San Francisco de Malabón ^a	Cavite	do	N. P.
SAN ISIDRO ^{a,c}	Nueva Ecija	do	N. P.
San Isidre ^a	Zambales	do	N. P.
San José ^a	Batangas	do	N. P.
San José ^a	Nueva Ecija	do	N. P.
San José ^a	Sámar	Sámar	S. P.
SAN JOSÉ DE BUENAVISTA ^a	Antique	Panay	S. P.
San José de Lagonoy ^a	Ambos Camarines	Luzón	N. P.
San Juan de Bocboc ^b	Batangas	do	N. P.
San Juan de Guimba ^b	Nueva Ecija	do	N. P.
San Juanico Straits	Sámar	Sámar	S. P.
San Joaquin	Iloílo	Panay	S. P.
San Marcelino ^a	Zambales	Luzón	N. P.
San Mateo ^b	Rizal	do	N. P.
San Miguel ^b	Bulacán	do	N. P.
San Nicolás ^b	Pangasinán	do	N. P.
San Pablo ^a	Laguna	do	N. P.
Santa Bárbara ^a	Iloílo	Panay	S. P.
Santa Cruz ^a	Laguna	Luzón	N. P.
Santa María	Bulacán	do	N. P.
Santa María ^a	Pangasinán	do	N. P.
Santa María ^a	Ilocos Sur	do	N. P.
Santa Rita	Sámar	Sámar	S. P.
Santa Rita I	do	do	S. P.
Santa Rosa ^b	Laguna	Luzón	N. P.
Santo Tomás ^a	Batangas	do	N. P.
Sara ^b	Iloílo	Panay	S. P.
Sarlaya ^a	Tayabas	Luzón	N. P.
Siasi (Siasi) ^a	Siasi	Siasi	S. P.
Silang ^a	Cavite	Luzón	N. P.
Silay ^a	Negros Occidental	Negros	S. P.
Solano	Isabela	Luzón	N. P.
Sorsogón ^a	Sorsogón	do	N. P.
Spanish Fort ^b	Batangas	do	N. P.
Station No. 2	Sámar	Sámar	S. P.
Station No. 3	do	do	S. P.
Súlat	do	do	S. P.
SURIGAO ^a	Surigao	Mindanao	S. P.
Taal ^a	Batangas	Luzón	N. P.
Tabaco ^a	Albay	do	N. P.
TACLOBAN ^{a,c}	Leyte	Leyte	S. P.
Tagbiliran ^a	Bohol	Bohol	S. P.
Taisan	Batangas	Luzón	N. P.
Talavera	Nueva Ecija	do	N. P.
Talisay	Batangas	do	N. P.
Tanauan ^a	do	do	N. P.

^a Telegraph stations.^b Telephone stations.^c Postal money-order office.

Stations of troops, Philippine Islands—Continued.

Station.	Province, civil or military.	Island.	Department.
Tanauan ^a	Leyte	Leyte	S. P.
Tanay ^b	Rizal	Luzón	N. P.
Taraúgnán (Dapdap)	Sámar	Sámar	S. P.
TARLAC ^c	Tárlac	Luzón	N. P.
Taviran	Sámar	Sámar	S. P.
TAYABAS ^a	Tayabas	Luzón	N. P.
Tayug ^a	Pangasinán	do	N. P.
Tinon (Tiaong) ^a	Tayabas	do	N. P.
Tigbuanu ^a	Hoílo	Panay	S. P.
Torres ^a	Sámar	Sámar	S. P.
Tubigón ^a	Bohol	Bohol	S. P.
Tubungan	Hoílo	Panay	S. P.
Tuburan	Cebú	Cebú	S. P.
Tucuran ^a	Cotabato	Mindanao	S. P.
Tuey	Batangas	Luzón	N. P.
Tuguegarao ^a	do	do	N. P.
Urdaneta ^a	Pangasinán	do	N. P.
VIGAN ^a	Ilocos Sur	do	N. P.
Valladolid ^a	Negros Occidental	Negros	S. P.
Valle Hermosa ^a	Negros Oriental	do	S. P.
Victoria ^b	Tárlac	Luzón	N. P.
Villareal	Sámar	Sámar	S. P.
Weyler ^b	do	do	S. P.
ZAMBOANGA	Zamboanga	Mindanao	S. P.

^a Telegraph stations.^b Telephone stations.^c Postal money-order office.

During the period between May 5, 1900, and June 30, 1901, 1,026 contacts took place between the American troops and insurgents, resulting in casualties, American killed 245, wounded 490, captured 118, missing 20; insurgents killed 3,854, wounded 1,193, captured 6,572, surrendered 23,095; material captured or surrendered to the Americans, rifles 15,693, rifle ammunition 296,365, revolvers 868, bolos 3,516, cannon 122, cannon ammunition 10,270.

The capture of the insurgent chief, Aguinaldo, in March, 1901, was the most important event of the military operations of the year. This was attended with the almost immediate surrender of many of the most implacable of the insurgent chiefs and their followers.

CIVIL GOVERNMENT.**UNITED STATES PHILIPPINE COMMISSION.***March 14, 1900.*

WILLIAM H. TAFT of Ohio, *President.*
 DEAN C. WORCESTER, Michigan.
 LUKE E. WRIGHT, Tennessee.
 HENRY C. IDE, Vermont.
 BERNARD MOSES, California.

CIVIL GOVERNOR OF THE PHILIPPINE ISLANDS.**WILLIAM H. TAFT, OF OHIO,***Ex-officio President of the Philippine Commission.**July 4, 1901.*

MEMBERS OF THE PHILIPPINE COMMISSION.

To date from September 1, 1901.

DEAN C. WORCESTER, *Secretary of the Interior.*LUKE E. WRIGHT, *Secretary of Commerce and Police.*HENRY C. IDE, *Secretary of Finance and Justice.*BERNARD MOSES, *Secretary of Public Instruction.*TRINIDAD H. PARDO DÉ TAVERA, *Member of the Philippine Commission.*BENITO LEGARDA, *Member of the Philippine Commission.*JOSÉ LUZURIAGA, *Member of the Philippine Commission.*

POWERS.—Under instructions of June 21, 1901, by the President to the Secretary of War, it was declared:

“On and after the fourth day of July, 1901, until it shall be otherwise ordered, the president of the Philippine Commission will exercise the executive authority in all civil affairs in the government of the Philippine Islands heretofore exercised in such affairs by the military governor of the Philippines, and to that end the Hon. William H. Taft, president of the said commission, is hereby appointed civil governor of the Philippine Islands. Such executive authority will be exercised under, and in conformity to, the instructions to the Philippine commissioners, dated April 7, 1900, and subject to the approval and control of the Secretary of War of the United States. The municipal and provincial civil governments which have been, or shall hereafter be, established in said islands, and all persons performing duties appertaining to the offices of civil government in said islands, will, in respect of such duties, report to the said civil governor.

“The power to appoint civil officers, heretofore vested in the Philippine Commission, or in the military governor, will be exercised by the civil governor, with the advice and consent of the commission.

“The military governor of the Philippines is hereby relieved from the performance, on and after the said 4th day of July, of the civil duties hereinbefore described, but his authority will continue to be exercised as heretofore in those districts in which insurrection against the authority of the United States continues to exist, or in which public order is not sufficiently restored to enable provincial civil governments to be established under the instructions to the commission, dated April 7, 1900.”

Governor-generals of the Philippine Islands from their formal occupation by Spain down to their transfer to the sovereignty of the United States.

[The Adelantado Miguel López de Legaspi took possession of these islands in the name of His Majesty Philip II in April, 1564.]

1574....Guido de Lavezares.
 1575....Francisco de Sande.
 1580....Gonzalo Ronquillo.
 1583....Diego Ronquillo.
 1581....Santiago de Vera.
 1590....Gómez Pérez Dasmariñas.
 1593....Pedro de Rojas (pro tem.).
 1593....Luis Pérez Dasmariñas.
 1595....Antonio de Morga.
 1596....Francisco Tello de Guzmán.
 1602....Pedro Bravo de Acuña.
 1606....Cristóbal Téllez de Lamezán.*
 1608....Rodrigo Vivero (pro tem.).
 1609....Juan de Silva.
 1616....Andrés Alcázar.*
 1617....Gerónimo de Silva (interregnum).
 1618....Alfonso Fajardo de Tuá.
 1624....Gerónimo de Silva.*
 1625....Fernando de Silva (pro tem.).
 1626....Juan Niño de Tabora.
 1632....Lorenzo de Olaaso.*
 1633....Juan Cerezo de Salamanca (pro tem.).
 1635....Sebastián Hurtado de Corcuera.
 1644....Diego Fajardo.
 1653....Sabiniano Manrique de Lara.
 1663....Diego Salcedo.
 1668....Juan Manuel de la Peña Bonifaz (pro tem.).
 1669....Manuel de León.
 1677....Francisco Coloma and Francisco Sotomayor y Mancilla.*
 1678....Juan de Vargas Hurtado.
 1684....Gabriel Curuzeléguil.
 1689....Alfonso Fuertes.*
 1690....Fausto Cruzat y Góngora.
 1701....Domingo Zabalburu.
 1709....Martín Urzua.
 1715....José Torralba.*
 1717....Fernando de Bustamante.
 1719....Francisco de la Cuesta, Archbishop of Manila (interim).
 1728....Marqués de Torre-Campo.

1739....Fernando Valdés y Tamón.
 1739....Gasparde de la Torre.
 1745....Juan Arechederra, Bishop-elect of Nueva Segovia.
 1750....José Francisco de Obando.
 1754....Pedro Manucl de Arandia.
 1759....Miguel Ezpeleta, Bishop of Cebú.
 1761....Manuel Rojo, Archbishop of Manila.
 1762....Simón de Anda y Salazar.
 1764....Francisco Javier de la Torre.
 1765....José de Raon.
 1770....Simón de Anda y Salazar.
 1776....Pedro de Sario.
 1778....José de Basco y Vargas.
 1787....Pedro de Sario.
 1788....Félix Berenguer y Marquina.
 1793....Rafael María de Aguilari.
 1806....Mariano Fernández de Folgueras.
 1810....Manuel Gonzales de Aguilar.
 1813....José Gardoqui de Garaveitia.
 1816....Mariano Fernández de Folgueras.
 1822....Juan Antonio Martínez.
 1824....Mariano Ricafort.
 1830....Pascual Enrile y Alcedo.
 1835....Gabriel de Torres.
 1835....Joaquín de Cramier.
 1835....Pedro Antonio de Salazar.
 1837....Andrés G. Camba.
 1838....Luis Lardizabal.
 1841....Marcelino de Oraá.
 1843....Francisco de Paula de Alcalá.
 1844....Narciso Clavería.
 1849....Antonio M. Blanco.
 1850....Antonio de Urbiztondo.
 1853....Ramón Montero.
 1854....Miguel Pavío y Lay.
 1854....Ramón Montero.
 1854....Manuel Crespo.
 1856....Ramón Montero.
 1857....Fernando de Norzagaray.
 1860....Ramón Solano y Llanderal.
 1860....Juan de Herrera Dávila.

* Military. Civil affairs under the Royal Audiencia.

Governor-generals of the Philippine Islands from their formal occupation by Spain down to their transfer to the sovereignty of the United States—Continued.

1861....José Lemery.	1880....Fernando Primo de Rivera.
1862....Salvador Valdés.	1883....Emilio de Molins.
1862....Rafael Echagüe.	1885....Joaquín Jovellar y Soler.
1865....Joaquín del Solar.	1885....Emilio de Molins.
1865....Juan de Lara & Irigoyen.	1885....Emilio Terrero.
1866....Juan Laureano de Sanz.	1888....Antonio Molto.
1866....Antonio Ossorio.	1888....Federico Lobatón.
1866....Joaquín del Solar.	1888....Valeriano Weyler.
1866....José de la Gándara.	1891....Eutogio Despujol.
1866....Manuel Maldonado.	1893....Federico Ochando.
1869....Carlos de la Torre.	1893....Ramón Blanco y Erenas.
1871....Rafael Izquierdo.	1896....Camilio G. de Polavieja.
1873....Manuel Mac-Crohon.	1897....José de Lachambré y Domínguez.
1873....Juan Alaminos y Vivar.	1897....Fernando Primo de Rivera.
1874....Manuel Blanco Valderrama.	1898....Basilio Augustín (May 1).
1874....José Malecampo y Monje.	1898....Fermín Jáudeus.
1877....Domingo Moriones y Murillo.	1898....Francisco Rizzo.
1880....Rafael Rodríguez Arias.	1898....Diego de los Ríos.

On March 14, 1900, the President named a commission for the institution, exploitation, and promotion of civil government, described in instructions dated April 7, 1900, to the Secretary of War, the intermediary of the President's directions. This commission was vested with authority to exercise duties of a legislative nature, to be transferred from the military governor to the commission to begin September 1, 1900, under such rules and regulations as they should prescribe until the establishment of the civil central government contemplated or until Congress should otherwise provide.

The exercise of this legislative authority was specifically limited to the making of laws and orders having the effect of law, for raising revenue by taxes, customs duties and imports, the appropriation and expenditure of public funds of the islands, the establishment of an educational system, of a civil service, of courts, of municipal and departmental governments and all other matters of a civil nature for which the military governor was competent to provide by rules or orders of a civil character, and the power to appoint persons to execute these powers.

Until complete transfer of control the military governor was to remain the chief executive head of the islands, with authority to act except where expressly assigned to the commission.

Other details were given which have become obsolete by the establishment of civil authority in civil affairs.

All legislative rules and orders, establishments of government, and appointments were to take effect immediately. Report of their acts was required from time to time, military posts and garrisons were to continue for the suppression of insurrection and brigandage and for the maintenance of order.

This commission arrived in Manila on June 3, 1900, but performed no duties in the military government until September 1, the intervening time being occupied in investigating conditions under the following heads:

1. Civil service, the friars and public lands.
2. Municipal corporations, forestry, agriculture, mining, and public health.
3. Internal improvements, franchises, militia, and police and criminal code.
4. Code of civil procedure, courts, banks, and currency and registration laws.
5. Schools and taxation.
6. Civil code.
7. Central department and provincial governments.

Thus comprehensively the commission began its difficult and delicate labors.

On September 1, 1900, the commission began the exercise of the governmental powers set forth in these instructions. William H. Taft was designated as president of the board.

The public laws passed by the commission under these legislative powers began September 12, 1900, and to October 11, 1901, numbered 263, not including resolutions, and covered every requirement of organic legislation and administrative details, either by original or amendatory enactments as the practical workings of the system suggested.

PUBLIC LAWS OF THE PHILIPPINE ISLANDS.

Abstract of Titles of Public Laws, of constructive effect only, passed by the United States Philippine Commission. Edition (1901) issued from the Division of Insular Affairs, War Department, 1900, September 12 (No. 1); 1901, October 11 (No. 263).

[A pamphlet edition of 1,500 copies of the Public Laws and Resolutions of the Commission, in English and Spanish, is issued quarterly at Manila, P. I., by authority of the Philippine Commission, October 24, 1900.]

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In the duty of reorganization of civil, provincial, and municipal jurisdiction on American lines, the United States Philippine Commission in a tour beginning at Bacolor, Pampanga (February 13, 1901), visited and held provincial meetings with conclusive results, exclusive of interviews, at the capitals of 36 provinces and islands, as follows: Pampanga, Pangasinán, Tárlac, Bulacán, Bataán, Tayabas, Luzón; islands of Marinduque, Romblón, Masbate, Panay (Iloílo), and Negros Occidental, in the western Visayas; Sulu, Basilan, Zamboanga, Surigao, Catobato, Davao, Misamis, Dapitan, in Mindanao, and Negros Oriental, Panay (Antique and Cápiz), Cebú, Bohol, Leyte, and Sámar, in the Eastern Visayas; Albay, Ambos Camarines, Sorsogón, Batangas, Manila, Mórong (Rizal), Cavite, Nueva Écija, Unión, Ilocos Sur, Ábra, Ilocos Norte, Cagayán, Isabela, and Zambales (Iba, August 28, 1901), Luzón.

Pursuant to its purpose to extend the provisions of the provincial government act to those provinces of the Philippine Islands considered sufficiently pacified for civil administration and in compliance with notice previously given to the different municipalities of the province so held in view, the commission met with representatives of the different provinces for the purpose stated.

In the organization of the provincial conventions, respectively, the president of the commission presided and the secretary called the roll of pueblos represented. After addressing the convention in congratulation of the many intelligent and educated men who were prepared to take part in the government of the municipalities, the president stated the sources from which the commission derived its authority and the object of the commission in coming among them, which was the establishment of provincial government, and to do which two steps were necessary:

First, to pass a law applying the general provincial law already passed to the province.

Second, the appointment of officers who were to conduct the provincial government.

The three steps in the establishment of popular civil government in the islands were pointed out as follows:

First, the establishment of the municipalities.

Second, the establishment of the provincial government.

Third, the establishment of the central civil government.

The municipal code by force of its own terms became applicable on April 1, 1901, to every town organized under General Orders, No. 40, series 1900.

This code did not change the general principles of organization, but was more elaborate and provided a different system of taxation. It required, however, no new election until the following year.

The functions, which it was the intention of the commission to apportion to the various governments, were then set forth, viz:

The municipalities to be entirely self-governing, electing all their officers.

The provincial government to be employed for two purposes:

First, the collection of taxes through a provincial treasurer.

Second, for internal improvements.

It also has a function in the supervision of the police of the province and of the conduct of municipalities.

The provincial treasurer to be the tax collector for the municipal, for the province, and for the central government.

The municipal code provided an ad valorem land tax based upon the value of land. The maximum tax to be levied limited to one-half of 1 per cent. The municipality being required to apply one-half this maximum to education under the provincial government, the maximum tax allowed to be three-eighths of 1 per cent. At least one-third of the amount of such maximum tax to be applied to the construction of roads. The land tax, as far as practicable, to take the place of internal-revenue taxes. The land tax to become effective March, 1902.

Until then the internal tax to be applied: One-half to the pueblos where collected, one-fourth to the provincial government, and one-fourth to the central government after defraying the cost of collection.

The personnel of the provincial government to consist of five officers:

PROVINCIAL GOVERNOR.—The chief executive, and to exercise control of the police of the province, with authority to take the police of one town to use in another in an emergency. Required to visit all the municipalities in the province every six months and charged with the duty of hearing complaints as to the conduct of the municipalities. Also executive officer of the court of first instance.

PROVINCIAL SECRETARY what the term implies.

PROVINCIAL TREASURER to collect all taxes and distribute them to the municipalities, to the provincial treasury, and to the central treasury. The tax not to be taken out of the pueblos, but when collected to leave in the town the portion to which it is entitled. Required to give a bond equal to the largest amount he is likely to have on hand at any one time.

PROVINCIAL SUPERVISOR to have charge of the roads, bridges, and the internal improvements of the province, and must be a civil engineer and surveyor.

PROVINCIAL FISCAL, charged with the duty of prosecuting all crimes in the province and with giving legal advice to every municipality upon request. In case of conflict between the interests of the province and the municipality the latter must secure its own lawyer.

The governing body to be composed of the provincial governor, treasurer, and supervisor. The provincial secretary to be the secretary of this board. This board to levy all taxes, order improvements on the recommendation of the supervisor, and exercise generally the limited government of the province. The governor to be elected by the councilors of the province. The offices of provincial secretary, provincial treasurer, and provincial supervisor to be filled by appointment of the commission. After March 1, 1902, these positions to be filled under the civil-service law. The provincial fiscal to be appointed without reference to the civil-service act.

All salaries to be adjusted according to the size and resources of the province.

In special cases, as in the provinces of Pampanga and Tárlac, an engineer or engineers was to be appointed to act in conjunction with others, as in the instance of the Manila and Dagupan Railroad, looking to preventing the disastrous floods resulting from overflow of the Rio Grande de Pampanga and the rivers Tárlac and Bambang.

Until the land tax became applicable the central treasury to make up deficits in cases of insufficient revenue in a province.

The proceedings of these organic conventions were conducted with the utmost fairness to the members of the body and the constituencies represented by them. Amendments to the proposed bill, however, were only applicable to the province represented and to cover objectionable features of the provincial law.

In all these deliberations the representatives displayed an exceptional knowledge of the questions advanced and the requirements of their province. The discussions were intelligent, and often amendments as to details were adopted.

The whole proceedings were conducted in parliamentary form. The officers chosen were notified, in order to complete the organization, to appear before the commission at Manila at a time stated to take the oath of office and receive their commissions.

FIRST PROVINCE ORGANIZED.

The province of Pampanga was selected as the first to receive provincial government under the Provincial Government Act of February 6, 1901.

The province of Benguet was established November 23, 1900, before the passage of that act.

In many instances the assembling of the organization conventions was attended by a public fête, including speeches of welcome by the

native leaders, in which reference was specifically made to "bringing to the people those liberties which they had long sought and which they so much desired." Where the representatives as a body were not familiar with Spanish the purposes of the commission were explained by a capable person familiar with the dominant native language of the province.

It was also set forth that the office of governor under the provincial law was one to which the humblest citizen of the province might aspire, that the President of the United States, in his instructions to the commission, had directed that preference should be given to the inhabitants of the islands whenever they showed fitness for the positions to be filled.

INAUGURATION OF THE CIVIL GOVERNOR.

On July 4, 1901, the ceremony of inauguration of the civil governor, under authority of the President's instructions, marked the second step toward civil government in the Philippine Islands; the transfer of civil executive power in the pacified provinces to a civil governor preparatory to permanent civil government on a more or less popular basis. The President sent congratulations from Washington on the occasion.

On July 20, 1901, G. O., 179, Headquarters Division of the Philippines, the provinces of Benguet, Pangasinán, Bataán, Tayabas, Romblón, Negros Oriental, Antique, Leyte, Ambos Camarines, Marinduque, Cavite, Surigao, Pampanga, Tárlac, Bulacán, Masbate, Negros Occidental, Iloílo, Cápiz, Albay, Sorsogón, Rizal, Nueva Ecija, and Misamis were placed on a strictly civil basis by ordering United States troops to abstain from interference with the administration of civil affairs in those territories except as ordered.

The civil provinces of Batangas, Cebú, and Bohol had been restored to the control of the military governor by act of the United States Philippine Commission July 17, 1901. On December 10, 1901, the province of Batangas was restored to military control, and parts of Batangas and Laguna were closed to trade under G. O., 372, Series 1901. The province of Cebú was returned to civil control January 1, 1902, and Bohol on April 7, 1902. On May 1, 1902, the ports of Batangas, Luzón, and Island of Mindoro were opened for the resumption of trade. The ports of Sámar also closed on account of military operations were reopened in May, 1902.

At this time, also, after many important surrenders and captures, including the leader in the general movement and chiefs in Laguna, Albay, and Cebú, the insurrection was confined to the Luzón provinces of Batangas, parts of Laguna and Tayabas, and the Visayan islands of Sámar and Bohol. In the organized provinces at that time and all the provinces and districts of Mindanao, the Sulu Archipelago, Palawan, and Lepanto, Bontoc, Nueva Vizcaya, Príncipe, and Infanta, in Luzón, peace reigned in the archipelago.

DISTRIBUTION OF ADMINISTRATIVE DUTIES.

At the beginning of the second legislative year of the commission (September 1, 1901) there were added to that body by appointment of the President three representative Filipinos. At the same time the executive branch of the insular government was divided into four executive departments, administered by a member of the commission.

1. *Interior*.—Charged with health, quarantine, forestry, mining, agriculture, fisheries, weather, non-Christian tribes, public lands, government laboratories, patents, and copyrights.

2. *Commerce and police*.—Island and interisland transportation, post-offices, telegraphs, coast and geodetic survey, public works, insular constabulary, prisons, lighthouses, railroad corporations, all corporations except banking.

3. *Justice and finance*.—Insular treasury, auditor, customs, immigration, internal revenue, cold storage and ice plant, banks, banking, coinage, currency, and justice.

4. *Public instruction*.—Public instruction, charities, libraries, museums, statistics, records, printing, architecture, and public buildings.

These subjects are distributed for primary consideration among committees of the commission.

At the time of the inauguration of the civil governor (July 4, 1901) 27 governments had been organized under the provincial act. Of these four or five and small parts of two other in which armed insurrection continued remained under military jurisdiction. There were 46 provinces or districts, including Mindoro and Palawan, in which was entire freedom from insurrection, but not organized for want of time.

In the organized provinces nearly all the towns were under the municipal code, and also in some in unorganized provinces. The judiciary law had superseded in most cases the jurisdiction of military commission to try ordinary criminal cases.

The sale of public lands, of mining rights, and the granting of franchises for railroads, steam lines, etc., opening the way to American and foreign enterprise and the opportunity of lucrative labor to the people, await action of Congress.

PROVINCIAL AND MILITARY GOVERNMENTS.

The territorial subdivisions of the Philippines in which the affairs of civil government are administered by civilians and those in which the affairs of civil government are administered by the military authorities.

Luzon.

[Under civil administration.]

Provinces and important dependencies.	Area (approximate).	Number of dependent islands.	Approximate population.
Abra, including Bontoc	Sq. m. 1,964	.....	57,285
Albay, including Catanduanes	1,711	21	228,139
Ambos Camarines	3,161	83	194,022
Bataán	436	1	50,761
Batangas *	1,108	28	311,180
Benguet	990	.....	15,175
Bulacán	841	.....	239,221
Cagayán, including Babuyanes and Batanes groups	5,291	46	96,367
Cavite	610	7	134,569
Ilocos Norte	1,265	4	163,349
Ilocos Sur	491	2	215,792
Isabela	5,395	2	48,302
Manila	20	.....	250,000
Corregidor	4	5	420
Nueva Écija	3,840	.....	156,610
Nueva Vizcaya, including Cayapa	1,075	.....	60,628
Pampanga	2,209	.....	223,922
Pangasinán	1,316	.....	302,178
Rizal	1,048	3	246,940
Sorsogón	675	16	98,650
Tárlac	1,295	.....	89,339
Tayabás	2,334	8	109,780
Unión	867	.....	110,164
Zambales	2,210	76	87,295
Total	39,156	302	3,490,088
Marinduque (island)	681	13	48,000

* Transferred back to civil administration.

^b Estimated.

The territorial subdivisions of the Philippines in which the affairs of civil government are administered by civilians, etc.—Continued.

LUZON—Continued.

[Under military administration.]

Provinces and important dependencies.	Area (approxi- mate).	Number of de- pendent islands.	Approxi- mate popu- lation.
Infanta, including Polillo group	Sq. m. 877	22	10,795
Laguna	752	4	169,983
Lepanto (Quiangan)	1,232	.....	46,152
Principe	1,218	3	10,470
Total	4,679	29	237,400

RECAPITULATION.

	Prov- inces.	Square miles.
LUZON:		
Under civil administration	21	39,024
Under municipal administration	1	24
Under military administration	5	5,187
Total	27	44,235

MINDANAO.

[Under civil administration.]

Provinces and important dependencies.	Area.	Number of de- pendent islands.	Approxi- mate popu- lation.
Misamis	Sq. m. 5,879	5	126,942
Surigao	13,201	83	85,125
Total	19,080	88	212,067

[Under military administration.]

Basilan	354	56	8,000
Cotabato	8,344	9	4,148
Dapitan	2,386	.....	20,273
Dávao	9,171	25	33,668
Lanao	3,900	.....	100,000
Zamboanga	3,486	80	117,503
Total	27,641	150	283,592

RECAPITULATION.

	Prov- inces.	Square miles.
Mindanao:		
Under civil administration	2	19,080
Under military administration	6	27,641
Total	8	46,721

MINDORO.

[Under military administration.]

Provinces and important dependencies.	Area.	Number of de- pendent islands.	Approxi- mate popu- lation.
Mindoro	Sq. m. 4,108	26	106,200

The territorial subdivisions of the Philippines in which the affairs of civil government are administered by civilians, etc—Continued.

PALAWAN.

[Under military administration.]

Provinces and important dependencies.	Area,	Number of dependent islands.	Approximate population.
Palawan (Paragua).....	Sq. m. 4,726	98	^a 50,000
Balábac	264	23	2,100
Cagayán de Sulu and St. Michaels islands	47	14	250
Total	5,087	135	52,350

^a Estimated.

SULU ARCHIPELAGO.

[Under military supervision and the terms of the agreement between the military representative of the President of the United States, Commander in Chief, and the Sultan of Sulu (Jolo).]

Sulu (Jolo) Archipelago.....			22,630
Balanguingui (group).....	38	19	
Pangutaran (group).....	72	14	
Sulu (Jolo) (group).....	380	29	
Tapul (group).....	77	38	
Tawi Tawi (group)	462	88	
Total	1,029	188	22,630

VISAYAS.

[Under civil administration.]

Bohol ^a	1,614	59	260,000
Cebú	1,782	29	518,082
Masbate:			
Burias	268	12	1,703
Masbate	1,315	46	23,069
Ticao	149	8	
Negros Occidental	3,112	14	231,512
Negros Oriental	1,742	3	140,498
Panay:			
Antique	1,340	6	115,484
Cápiz	1,661	30	224,000
Iloilo	2,102	80	462,444
Roumblón	515	32	55,339
Leyte	4,214	40	270,491
Total	20,495	372	2,302,522

^a Transferred back to civil administration.

[Under military control and military-civil administration.]

Sámar	5,488	148	195,386
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RECAPITULATION.

	Prov- incees.	Square miles.	Approximate popula- tion.
Visayas:			
Under civil administration	9	18,881	2,090,522
Under military administration	3	7,102	455,386
Total	12	25,983	2,545,908

The territorial subdivisions of the Philippines in which the affairs of civil government are administered by civilians, etc.—Continued.

UNASSIGNED GROUPS AND ISLANDS UNDER MILITARY CONTROL AND MILITARY-CIVIL ADMINISTRATION.

Islands (groups) and important dependencies.	Area.	Number of dependent islands.	Approximate population.
	Sq. m.		
Calamianes (group)	677	98	16,338
Cuyos.....	63	47	8,500
Total	740	145	24,838

RECAPITULATION.

[Provinces under civil administration.]

Island.	Number.	Area (approximate).	Number of dependent islands.	Approximate population.
		Sq. m.		
Luzón :				
Provinces.....	21	39,024	274	3,178,908
Municipal	1	24		
Marinduque.....	1	681	13	48,000
Mindanao	2	19,080	88	212,067
Visayan group.....	9	18,200	300	2,042,522
Total.....	34	77,009	675	5,481,497

[Islands and provinces under military administration.]

Luzón (provinces)	5	5,187	57	518,580
Mindanao (provinces).....	6	27,641	150	283,592
Mindoro (islands)		4,108	26	106,200
Palawan and islands		5,037	135	52,350
Sulu archipelago		1,029	188	22,630
Visayan group (two islands)	2	7,102	207	455,386
Unassigned (two groups)		740	145	24,838
Total.....	13	50,844	908	1,493,576

Total population of the archipelago..... 6,975,073
 Total area..... 127,853
 Average number of inhabitants to the square mile..... 54.55

The provincial organizations will be found under civil governments of provinces, respectively.

In the regions occupied by the Moros (Moslem) and non-Christian tribes in Mindanao, except Misamis and Surigao already organized in Bontoc and Lepanto, in Luzón, Sulu in Mindoro, and in the Calmianes, a special form of civil government is proposed.

In November, 1900, the Federal party was organized to secure peace in the islands under the sovereignty of the United States. The movement spread rapidly, nearly every town in the archipelago having its Federal committee actively and effectively engaged in inducing insurgent leaders to surrender, and otherwise aiding in restoring and maintaining order in disturbed localities.

An approximate view of the cost of running a province of the first rank may be taken from the report of the treasurer of the island of Negros. The expenditures appropriated by the council and approved by the military for 1900 amounted to \$294,758.75, Mexican, divided under heads as follows:

	Budget.	Amount expended.
Judicial department.....		\$24,269.65
Civil governor and council.....		20,572.96
Treasury department.....		6,075.67
Interior department.....		49,066.81
Agricultural.....		10,147.21
Public instruction.....		32,560.47
Attorney-general.....		404.39
Auditor's office.....		5,142.46
Governor of Oriental Negros.....		5,002.13

A VICE-GOVERNOR APPOINTED.

On October 29, by order of the President, Luke E. Wright was appointed vice-governor, with authority to act as civil governor whenever the civil governor is incapacitated by illness, or certifies that his temporary absence from the seat of government will make it necessary for the vice-governor to exercise such powers and duties. The report of the United States Philippine Commission to the Secretary of War, Manila, November 30, 1900, of the same to the Secretary of War for the period from December 1, 1900, to October 15, 1901, December, 1901, parts 1 and 2, and Public Laws and Resolutions passed by the said commission, 1900 (September), 1901 (October), Nos. 1 to 263, and certain resolutions cover the official literature on the labors of the Commission and a large amount of relevant information gathered in the regular order of business of subordinate bureaus.

MUNICIPAL GOVERNMENTS.

The municipal code, enacted on January 21, 1901, was in operation in 616 towns to October 15, 1901, with the provinces of Bataán and Isabela (Luzón), Bohol (Bohol), Cápiz (Panay), Cebú (Cebú), and Surigao (Mindanao) not reported. In practice, with a few amendments (act No. 132, 1900-1901) suggested by the people, it was working satisfactorily. Individual instances of misconduct on the part of municipal officers, chiefly a survival of the old system of "Caciquismo," are few, compared with the inexperience of the individuals in American methods. The code for public information is distributed in English, Spanish, Tagálog, Visayan, Vícol, and Ilocano.

As a rule, the towns have been self-supporting in advance of the land tax being operative. (See Population, qualified electors.)

Civil service.—On September 19, 1900, under an act "for the establishment and maintenance of an efficient and honest civil service in the Philippine Islands," a board was created, a classified service organized, and all appointments of civilians to executive position in the insular service were placed under its provisions.

The following shows the number of employees, Americans and Filipinos, respectively, in the Philippine civil service, and expenditures for salaries, 1900-1901:

	Americans.	Filipinos.	Total.	Salaries.
Insular department.....	1,172	793	1,965	\$1,470,880
Municipal service of Manila.....	616	1,127	1,743	885,224
Judicial service.....	33	143	176	217,132
Provincial service.....	107	476	583	373,973
Philippines constabulary.....	112	22	134	139,640
Grand total.....	2,040	2,561	4,601	3,086,854
Americans.....				2,280,044
Filipinos.....				806,945

Education.—During the military control of the island the promotion of education among the Filipinos, it might be said, followed the flag. After the accession of civil administration a systematic plan of educational promotion was formulated and put in operation by the establishment (P. C., act No. 74, 1901) of a department of public instruction, with jurisdiction over all public schools in the archipelago. The employment of 1,000 trained teachers in the United States was authorized, who were conveyed to Manila by transport, together with school supplies in large quantities. The following exhibit shows the number of teachers stationed: July 1, 1901, 124; to October, 1901, 645; total, 769; discharged, resigned, and deceased, 16; total, October 1, 1901, 753. These represented 45 States, the District of Columbia, Oklahoma, Philippines (148, many of them discharged soldiers and women taken into service at Manila), and were appointed upon the recommendation of 53 institutions in the United States. The personnel of the bureau of public instruction September 18, 1901, was: Employees, general superintendent, clerks, stenographers, interpreters, etc., 28; teachers, 724; total, 752. The native teachers in Manila and the provinces numbered several thousand.

The school year is from October 1 to May 31, about 8 months, which puts the vacation in the season of the rain and the rice harvest.

The general superintendent and 4 members appointed by the civil governor constitute a superior advisory board. In each municipality is a local school board of 4 to 6 members, in addition to the presidente or alcalde. Each pueblo is a school district, and the municipal council is required to make provision by local taxation for the support of schools.

Trade, normal, and nautical schools in Manila and an agricultural school in Negros (Carlota La) are in operation.

The conduct of religious exercises in public schoolhouses is prohibited, but teaching religion under certain restrictions is permitted one-half hour 3 times a week if requested in writing by the parents or guardians of the children of the school.

In the first examination of Filipinos none was in English. The requirement of a knowledge of the English language has been steadily advanced in the examinations which have been held by the board since.

The attendance at the public schools of Manila for the school year 1900-1901 was 4,460. At the end of July, 1901, on reopening, 5,133 pupils were in attendance. An estimate 1901 showed 150,000 Filipino pupils enrolled in the free primary schools established by the government and that 75,000 were in daily attendance. The same indicates between 3,000 and 4,000 elementary Filipino teachers engaged in the schools, of whom 2,000 received daily 1 hour of English instruction; also 10,000 adults receiving English instruction in evening schools conducted by American teachers. An extension of these schools embraces 30,000 adults in attendance.

Health.—A board of health for the archipelago was created July 1, 1901, by act of the Philippine commission, and by the same authority was made the local board of health for the city of Manila with the largest powers, by special acts in the regulation of the practice of medicine, pharmacy, dentistry, and veterinary medicine, the organization of provincial and municipal boards of health and public vaccinations, its duties also involving recommendations of legislation pertaining to the general health and sanitation of the archipelago, including diseases of domestic animals. Under this act a corps of san-

itary inspectors, a chief, and medicals was organized. The city was divided into districts with stations and municipal physicians.

The most effective methods of treatment or prevention of the plague have been instituted.

The leper hospitals of San Lazaro, Manila, Cebú, and Palestina (Ambos Camarines) are in operation. A similar institution is proposed at Bacolod, Negros Occidental. A permanent colony of lepers is in progress of location.

The number of lepers in the archipelago is estimated at less than 10,000; other figures, 30,000.

Under the Medical Department of the Army public vaccinations have been made in many of the pueblos of the archipelago. The figures given foot up over 1,000,000 natives so treated.

The following general facts about public health in the Philippine Islands may be mentioned. Two classes of diseases occur:

1. Diseases common to temperate and tropical countries.
2. Diseases especially characteristic of the latter regions.

To the first belong smallpox, cholera, bubonic plague, and leprosy. Smallpox is endemic in the islands.

Destructive epidemics of Asiatic cholera have occurred in the past at long intervals. The last was in 1889. The most fierce was in 1882. An outbreak of cholera in Manila and vicinity has recently occurred.

Tuberculosis is common among the natives.

Black plague appeared in Manila in December, 1899, but was almost entirely confined to Chinese and natives.

Beri-beri is confined as a rule to natives.

Leprosy is common.

Sunstroke is rare, but heat prostration is common.

There is another class of diseases which, while not confined to the tropics, are apt to occur in their severest and most dangerous form in hot countries, such as diarrhea, dysentery, malarial troubles, and beri-beri.

There is a different degree of healthfulness in the various islands. Mindoro and Balábac are the worst from a sanitary point of view. Sibuyán, Guimarás, Siquijor, and Cebú are considered specially healthful.

The rinderpest, which has prevailed for some years in many localities, having caused the almost entire destruction of the carabao, has been successfully controlled by instruction of the natives in the methods of treatment of the disease and the immunization of animals.

The locust pest is also receiving scientific attention.

Constabulary.—On July 18, 1901 (act No. 175), the Philippine constabulary was organized on its present status. The force has been extended to 32 provinces and comprises 2,500 enlisted men. The organic act and code regulations are printed as a handbook in English and Spanish, Visayan, Bicol, and Ilocano, and their usefulness has been sustained in actual service.

REVENUES AND EXPENDITURES.

The central government for its support depends mainly on import and export duties. The internal taxes are chiefly devoted to the support of provincial and municipal governments. One-half the internal-revenue receipts, i. e. industrial, urbana, and stamp taxes since January,

1901, has been turned over to the provincial treasury and the remaining one-half to the municipalities of the province. A cedula, or poll tax, of \$1 Mexican is levied upon each male person between 18 and 55 years of age; one-half paid into the treasury of the town in which he lives and the other into the provincial treasury. The municipal council also has the power to license saloons and other business requiring police supervision.

During the year 1902 the collection of an ad valorem land tax for the benefit of the provincial and municipal governments is set to begin, viz: The provincial board levying one-eighth of 1 per cent on the assessable land of the province for roads and bridges and may levy two-eighths more for general purposes. The municipal council is required to levy one-fourth of 1 per cent for schools and may levy one-fourth per cent more for general purposes. Estimates indicate that the towns will be self-supporting, any deficiency, however, to be met by an increase of the land tax.

Revenues and expenditures in the Philippine Archipelago from date of American occupation, August 20, 1898, to June 30, 1901.

[Compiled from auditor's certificates covering the fiscal affairs in the Philippine Archipelago from date of American occupation to December 31, 1899. Subsequent to January 1, 1900, approximated from the treasurer's account, which has been audited for the entire period.]

	Fiscal year ended June 30—			Total.
	1899.	1900.	1901.	
REVENUES.				
Customs	\$3,097,864.15	\$5,535,952.49	\$9,032,600.70	\$17,666,417.34
Postal	42,954.87	104,282.54	121,559.26	268,796.67
Internal	240,378.27	522,509.01	932,484.91	1,695,372.19
Miscellaneous	130,131.03	361,195.58	591,017.52	1,082,344.13
Total.....	3,511,328.32	6,523,939.62	10,677,662.39	20,712,930.33
EXPENDITURES.				
Customs	29,177.16	134,685.83	280,815.23	441,678.22
Postal	30,410.75	89,149.51	147,031.25	266,591.51
Other expenditures.....	2,337,810.80	4,994,545.78	6,335,975.20	13,668,331.78
Total.....	2,397,398.71	5,218,381.12	6,763,821.68	14,379,601.51

Customs revenues in the Philippine Archipelago from date of American occupation, August 20, 1898, to June 30, 1901, as reported by the collectors of customs.

	Fiscal year ended June 30—			Total.
	1899.	1900.	1901.	
PORTS.				
Manila	\$2,768,068.08	\$4,705,016.65	\$7,635,159.42	\$15,108,244.15
Iloilo	198,271.16	480,427.21	777,054.06	1,455,752.43
Cebú	131,524.91	313,485.28	498,522.27	943,532.46
Joló (Sulu)		27,005.32	88,621.46	115,626.78
Siasi.....		6,010.34	14,569.06	20,579.40
Zamboanga		4,007.69	18,674.43	22,682.12
Total.....	3,097,864.15	5,535,952.49	9,032,600.70	17,666,417.34
ITEMS.				
Import duties.....	\$2,589,227.88	\$4,777,728.90	\$8,153,700.38	\$15,525,657.16
Export duties.....	478,901.00	572,788.34	671,484.07	1,723,173.41
Tonnage (tax)	12,781.51	48,305.63	93,535.92	154,623.06
Fines, seizures, etc	1,706.16	35,123.72	16,213.64	53,043.52
Other revenues	15,247.60	102,005.90	92,666.69	209,920.19
Total.....	3,097,864.15	5,535,952.49	9,032,600.70	17,666,417.34

As far as the accounts of the collectors of customs have been certified by the auditor, the harbor improvement tax has been included in the import duties. This tax is a levy of 8 per cent on the value of all dutiable merchandise imported into the islands, and 10 per cent additional on the amount of import duty, which would indicate that about 10 per cent of the amount shown herein as import duties is in fact harbor-improvement tax.

Condition of the insular treasury at periods stated.

September 1, 1900:

Available for appropriation, gold values on the basis of \$2 insular currency for \$1 in United States money..... \$3,023,834.29½

September 1, 1901:

Available for appropriation, gold values as above..... 5,106,518.46

Receipts by the treasurer of the archipelago from customs, internal revenue, post-office, miscellaneous, Spanish funds seized from August, 1898, to June, 1899.....	3,908,675.28
Withdrawals for disbursements, same period	3,094,102.28

Balance July 1, 1899.....	814,573.00
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Receipts, 1899 (July) to 1900 (June).....	6,803,482.43
Withdrawals, 1899 (July) to 1900 (June)	5,149,523.12

Balance July 1, 1900.....	1,653,959.31
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Balance July 1, 1899.....	814,573.00
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Total July 1, 1900	2,468,532.31
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Receipts, 1900 (July) to 1901 (June).....	11,263,317.07
Withdrawals, 1900 (July) 1901 (June)	7,063,921.67

Balance net.....	4,199,395.40
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Balance July 1, 1900.....	2,468,532.31
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Balance in treasury June 30, 1901.....	6,667,927.71
Receipts, 1901 (July, August, September).....	3,846,319.95½

Total	10,514,247.66½
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Withdrawals, 1901 (July, August, September)	3,054,071.96½
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Balance in treasury, including Spanish seized funds, September 30, 1901.....	7,460,175.70
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Finances, money, and exchange.—The local banks of Manila refused to receive deposits in money of the United States and required all such money to be exchanged into local currency before being deposited, a commission being charged for exchange. Depositors, therefore, wishing their money in United States currency, were obliged to repurchase it from the banks again paying a commission for the exchange. This discrimination against money of the United States was remedied by an act (P. C., No. 53) passed November 28, 1900, requiring banks of deposit in the islands to accept deposits both in money of the United States and in Mexican or local currency and to repay such deposits by checks or otherwise in the kind of money in which they were made. A military order authorized the exchange of 2 pesos of local currency for \$1 of money of the United States. Notwithstanding a greater value of United States gold as compared with the value of Mexican dollars, the ratio of 2 to 1 is maintained instead of \$2.02 or \$2.04 insular currency to \$1 money of the United States. A new coinage on the United States standards with a United States-Filipino peso, value 1 half dollar United States, is proposed.

FINANCIAL INSTITUTIONS.

The treasurer of the Philippine Archipelago reports as follows of the condition December 31, 1901, of the Banco Espanol-Filipino and its branch at Iloilo; the Manila and Iloilo branches of the Hongkong

and Shanghai Banking Corporation; the Manila and Cebú branches of the Chartered Bank of India, Australia, and China.

The returns are in pesos, 1 peso valued at 50 cents.

The capital stock of the Spanish-Filipino Bank is shown to be 1,500,000 pesos, and that of the Manila branch of the Hongkong and Shanghai Banking Corporation 1,000,000 pesos. No capital appears to be assigned to any of the other bank branches. The bank-note circulation of the archipelago is confined to the Spanish-Filipino Bank, and amounts to 2,407,560 pesos. The aggregate liabilities of these banks and branches is shown to be 53,415,809.66 pesos, the principal items enumerated being as follows: Deposits, 35,012,127.71; deposits of banks and agencies, 10,059,388.22; surplus and undivided profits, 2,972,717.

The loans and discounts, including overdrafts, aggregate 16,923,424; investment in stocks, securities, etc., 1,502,549; bills of exchange, 2,169,975; due from banks and bankers, 7,943,089; specie, bullion, and notes in bank, 23,139,105. The banks hold in United States gold 457,360; United States notes, 4,095,066; United States silver dollars and subsidiary coins, 559,979; gold and silver bullion, 20,795 and 5,020, respectively; Mexican and Spanish-Filipino pesos (silver), 13,579,784 and 2,490,975, respectively. The banks carried in their vaults 1,827,450 Spanish-Filipino bank notes and 102,674 Spanish-Filipino fractional currency.

Accompanying reports hereinbefore referred to was a statement of condition of the savings bank and pawn shop of Manila, which is capitalized at 221,460.90 pesos, and at date of report, January 11, 1902, had deposits to the amount of 755,829.70. The aggregate resources of this institution amounted to 1,096,597.11, the principal items being loans, 713,822; real estate and mortgages owned, 165,164.05.

Abstract of returns from the Manila and Cebú branches of The Chartered Bank of India, Australia, and China; Manila and Iloilo branches of the Hongkong and Shanghai Banking Corporation; The Banco Español at Manila and its Iloilo branch, December 31, 1901.

[Number of banks, 6.]

[NOTE.—Two pesos equal \$1.]

Resources.	Pesos.	Liabilities.	Pesos.
Loans and discounts.....	13,263,379.76	Capital stock paid in.....	2,500,000.00
Overdrafts.....	3,660,044.40	Surplus fund.....	2,331,726.23
Stocks, securities, etc	1,502,549.05	Undivided profits, less expenses and taxes paid.....	649,990.77
Banking house, furniture, and fixtures.....	113,890.12	Bank notes outstanding.....	2,407,560.00
Bills of exchange.....	2,169,975.27	Due to other banks, agencies, etc.....	10,059,388.22
Due from banks and bankers, etc	7,943,089.72	Dividends unpaid.....	209,790.34
Checks and other cash items.....	7,840.54	Individual deposits.....	15,013,469.88
United States gold coin.....	457,360.00	Insular deposits.....	14,983,897.34
United States notes.....	4,095,066.00	Deposits of insular disbursing officers	5,014,760.49
United States silver dollars and fractional currency.....	559,979.58	Bills payable.....	59,451.03
Gold bullion of other countries.....	20,795.80	Liabilities other than those above stated	194,775.36
Silver bullion of other countries.....	5,020.27		
Mexican pesos.....	13,579,784.00		
Spanish-Filipino pesos.....	2,490,975.00		
Spanish-Filipino fractional currency.....	102,674.44		
Banco Español-Filipino notes	1,827,450.00		
Other resources.....	1,615,935.71		
Total	53,415,809.66	Total	53,415,809.66

Abstract of report made to the Comptroller of the Currency showing the condition of the Monte de Piedad y Caja de Ahorros de Manila, in the Philippine Islands, at the close of business on January 11, 1902.

[Number of banks, 1.]

[NOTE.—Two pesos equal \$1.]

Resources.	Pesos.	Liabilities.	Pesos.
Loans and discounts.....	713, 822.00	Capital stock paid in.....	221, 460.90
Banking house, furniture, and fixtures.....	1, 882.48	Individual deposits.....	755, 829.70
Other real estate owned.....	165, 164.05	Deposit insular disbursing officer.....	1, 000.00
United States gold coin.....	10.00	Other liabilities.....	118, 306.51
United States notes.....	280.00		
United States silver dollars.....	176.00		
Mexican pesos.....	7, 044.30		
Spanish-Filipino fractional currency.....	.03		
Banco Español-Filipino notes.....	1, 655.00		
Checks and other cash items.....	3, 850.00		
Other resources.....	202, 713.25		
Total.....	1, 096, 597.11	Total.....	1, 096, 597.11

Internal revenue.—The organization of the bureau of internal revenue under G. O., No. 54, Military Governor's Office, April 15, 1900, section 9 of act No. 83, provides that the provincial treasurer "shall act as collector of internal revenue for the province, and as such shall report to the collector of internal revenue for the islands and shall make such settlements and deposits as are now required by law." Regulations respecting these taxes and the disposition of the funds collected are provided in section 9 of act No. 133.

The collections throughout the islands show a material increase over the collections for the previous year, on account of the extension of the field covered and also the increase of business at the trade centers.

This is particularly true of the city of Manila, where the collections for the fiscal year 1900-1901 show a total increase of over 28 per cent.

The work of collecting internal revenue in the city of Manila was turned over to the city assessor and collector on August 7, 1901, in accordance with the terms of the Manila charter. Since that time the acting collector of internal revenue has furnished stamps to the various provincial treasurers and revenue officers, and has been receiving collections for forestry payments in the city of Manila and administering the revenue offices in the unorganized provinces. As these duties are in connection with the work of the city assessor and collector, no expense is entailed on the insular government.

Statement of collections and expenses of internal-revenue department from July 1, 1900, to October 1, 1901 (United States currency).

[This statement does not include sale of certificates by registration officers nor disbursements by disbursing quartermaster for civil bureaus for this department.]

Department.	Collections.	Expenses.	Per cent of expenses to collections.
Northern Luzón.....	\$185,011.20	\$10,954.51	5.92
Southern Luzón.....	105,727.38	9,221.08	8.722
Visayas.....	114,395.305	6,588.37	5.76
Mindanao and Joló Sulu.....	14,009.75	1,587.95	11.32
Manila.....	617,665.33	31,735.265	5.1378
Total.....	1,036,808.965	60,087.175	5.8

PUBLIC LANDS.

The islands are estimated to contain about 29,694,500 hectares, or 73,345,415 acres of land, of which 2,000,000 hectares, about 4,940,000 acres, are held in private ownership, leaving 27,694,500 hectares, 68,405,415 acres, of public lands. The acreage, according to the computed details of areas in this Gazetteer, footing up 127,853 square miles, would give 81,825,920 acres. The greater portion of this land is fertile, well watered, and adapted to useful crops. Much is covered with mineral deposits of gold, copper, high-grade iron and coal, etc., and is being prospected and made ready to acquire rights. In 1894 the minister of colonies reported 200,000 squatters. United States expert estimates give double that figure. The above relation of private to public lands is not as large in Mindanao, Mindoro, and Palawan.

The development of the islands by the survey, sale, and settlement of the public lands awaits action. Provisions for limited homestead disposition and public auction of limited tracts on proper conditions at not less than fixed minimum prices, with provisions for preliminary survey at the expense of the applicant and subject to reconfirmation on the completion of the official survey, are recommended.

The acreage of the land, according to statements submitted, owned by friars in the provinces where the population is dense is: Cavite, 121,747 acres; Laguna, 62,172 acres; Manila Province (now Rizal), 50,145 acres; Bulacán, 39,441 acres; Cebú, 16,413 acres; Mórong (now Rizal), 4,940 acres; Bataán, 1,000 acres—upward of 300,000 acres. In addition to this, more than 100,000 acres lie, one-half in Isabela and one-half in Mindoro, in regions sparsely settled. According to a statement of the civil governor, the aggregate in round numbers is 420,000 acres.

CONDITIONS AT THE TIME OF SPANISH OCCUPATION.

The racial divisions and animosities at the time of the Spanish discovery were favorable to occupation, jurisdiction, and government. The people as a mass were passive, without traditions, and abject, owing to long high-handed treatment by adventurers at home and predatory Chinese on the one hand and piratical Malays on the other from abroad. An evidence of the conditions is the acceptance of Christianity without the opposition raised by other oriental peoples. It was the largest movement of the inhabitants of a single part of the world practically at one time within the fold of Christendom. The Moros of Palawan and Mindanao, converted earlier to the doctrines of the Koran, and a few of the wild tribes were the only exceptions. At the time the people were heathen, and lived submissive to the ferocious rule of petty chiefs and engaged in wars and headhunting against their neighbors. The Spanish occupation of the island curbed the power of the chief, upheld slavery, abolished hereditary authority and rank, and substituted a system of titles of their own creation for services rendered in behalf of the Crown of Spain. They permitted established customs and laws to continue as long as they did not conflict with Spanish supremacy and interests. The system for a long period was in every respect paternal. The cruelties practiced in the Americas in the beginning did not exist.

SPANISH METHODS.

The islands were practically a conquest of the cross, with a little assistance from the sword for business, and enough commerce absorbed by a handful of Spaniards in trade with China and Japan, and a ship or more annually with Spain, to crystallize the elements of authority. The only tax was the poll, or "tributo," which did service for 3 centuries at \$1 for every pair of adults. This was raised from time to time, with the progress of Western civilization, to \$2¹/₆ and 40 days' labor to the State, the latter commuted at about \$3. No personal service was required from women.

Among the evils of the Spanish system with the increase of commercial intercourse were the Government monopolies, as tobacco, possibly abused by unscrupulous agents by seizing the fields of the private landowner, compulsory labor, defrauding the husbandman of his product, or arbitrarily fixing prices at rates amounting to confiscation.

In the concrete, Spain bettered the condition of the people, the best of whom when they arrived were living as a servile remnant of some earlier civilization. The progress of Western commercialism and encroachments of foreign trade so changed these earlier conditions that the more ambitious of the dominant races, particularly the Tagalogs, became restive under the tightening hand of Spanish rule.

THE "MAURA LAW" OF MUNICIPAL GOVERNMENT.

On May 19, 1893, a royal decree, issued on the recommendation of the colonial secretary, Don Antonio Maura y Montaner, the author of the law, provided a form of municipal government for those towns in the Philippine Islands inhabited by the Christian Filipinos. Under this law Luzon and the Visayan islands were divided into provinces and districts, each province or district into pueblos (towns); each pueblo into districts (divisions); each distrito into barrios (wards), and each barrio into barangayes (groups of 50 to 100 families).

The governing bodies were:

The governor-general, assisted by the council of administration, the board of authorities, and the general directorate of civil administration formed the general government of the archipelago.

The governor of the province, assisted by the provincial council (junta), governed or rather supervised the affairs of the province.

The municipal tribunal, assisted by the principalia, administered the pueblo.

The cabeza de barangay (head of a hundred) represented the government as a sort of agent in the barangay.

The divisions called distritos and barrios were merely for the purpose of administration.

The governor-general was appointed by the Government in Spain.

Council of administration: Three delegates from Luzon and 3 from the Visayan islands were elected by provincial councils (juntas).

Others were appointed by Spanish Government.

Governor of province was appointed by the Government in Spain.

Provincial junta:

Governor of province and 5 other officials, members ex officio.

Four other members were elected by municipal captains.

The municipal tribunal (captain and 4 lieutenants) were elected by 12 delegates of the principalia (chief of citizens).

Twelve delegates of the principalia were chosen by the principalia.

The principalia was composed of all persons who had held certain offices, persons who had paid \$50 land tax.

The cabezas de barangayes were appointed by the governor of the province on recommendation of the 12 delegates or "principals" and municipal tribunal, but were practically elected by municipal tribunal.

A SYSTEM OF HOME RULE AND ITS LIMITS.

This law, which organized the municipal government of the Philippine Islands, applied to Luzón and the Visayan islands, different provision, mainly military, being made for the Sulu Archipelago and Mindanao. The natives of Luzón and the Visayan islands were in the main civilized and Christianized, and lived together in pueblos (cities or towns). A municipal tribunal (council) was established in every pueblo of Luzón and the Visayan islands, with the exception of Manila, Iloílo, Cebú, and some other places not necessary to mention. This council was defined as the legal association of all the people living within the limits of the same pueblo, and was charged with the administration of its affairs and interests. This was the only home rule the Filipinos enjoyed. By a study of the system and its operations will be gained an accurate idea of their experience in the administration of public affairs and, inferentially, of their capacity at the present time for self-government. A comprehensive view of Philippine government under Spanish rule and a plan under United States authority, with other information bearing on those questions, will be found in Report of the Philippine Commission to the President, volume 1, January 31, 1900, transmitted to Congress February 2, 1900.

The Katipunan or League formed after the suppression of the outbreak of 1872 became a revolutionary organization and led up to the outbreak of 1896, in every respect more serious than any which had previously confronted Spain. Cavite Province was its center. Operations were conducted with frightful atrocities on both sides. The treatment of Dr. José Rizal, after whom a province has been named by the wish of the people and the authority of the Commission, was but a single proof of this.

PACTO DE BIAC-NA-BATÓ.

Gen. Primo de Rivera negotiated the Pacto de Biac-na-bató, signed December 14, 1897, the Spanish Government paying \$1,000,000 to the rebels (among them Aguinaldo) for the abandonment of the revolution and \$700,000 for the benefit of the families that had sustained losses by reason of the war, on condition of no renewal of rebellion or conspiracy.

Spain paid one installment (\$400,000), then duped the parties to the pact in the payment of the obligated sum and renewed the persecutions. Much of this money held on deposit was used to continue the operations of the insurrection, of which Aguinaldo was the chief, against the Americans.

About twenty-four days after the capture of Manila by the United States squadron, Aguinaldo, the chief in these transactions, by permission of the American Admiral and in the guise of friendship, landed in Luzón, and less than three weeks later, in disrespect of the United States authority, proclaimed the end of Spanish sovereignty, declared the Philippine Islands an independent republic, formed a rump government, located its seat of operations at Malolos in the adjacent province of Bulacán, and with grandiose circumstance installed the functionaries of authority, simultaneously pompously announcing "that an American protectorate would not be opposed."

The aggressive military operations of the forces of the United States, challenged by the insurgent attack upon the American lines around Manila, promptly disposed of organized opposition. The guerrilla warfare which followed received effective treatment by departmental and district commanders, and may be found under the provinces or islands in which the events transpired.

A SPANISH SCHEME OF SOVEREIGNTY AND AUTONOMY.

A scheme of Spanish sovereignty and Philippine autonomy was proposed to Spain June 19, 1898, after the destruction of the Spanish fleet and occupation of Manila Bay by the United States squadron, the organization and duties of which devolved upon—

- I. General government—sovereignty of Spain.
- II. The assembly representation of the archipelago—legislative power.
- III. The council of government—responsibility of the ministers—executive powers. (Details of the scheme, see Exhibit VII, Report of the Philippine Commission, volume 1, facing page 228, Senate Doc. No. 138, Fifty-sixth Congress, first session.)

NATURAL HISTORY.

Mammals.—The Philippines are poor in mammals, although well adapted to a large and diversified mammalian fauna. The most important are:

BATS occur in great numbers, especially in Guimarás, Siquijor, and Cebú. Some species are peculiar to the archipelago. Their skins have been used for furs.

BINTÓRANG; a carnivorous animal found in the Palawan-Calamianes group.

BOVINE CATTLE are raised in Masbate, Calamianes, and some of the small islands north of Luzón. They are killed for their flesh, hides, and horns, and little attention is paid to milk-giving properties.

CACHOLET; found in the seas of the archipelago, spermaceti being obtained from it.

CARABAO or **WATER BUFFALO**; 2 kinds, the domesticated and wild. The former is the beast of burden in the Philippines, tolerably strong, but sluggish in movements, fond of water and of taking a mud bath, a wonderful swimmer, not hesitating to cross 10 miles of open sea. They sometimes display a violent dislike for white men, occasionally stampeding at the mere scent. Their flesh is eaten by the natives, but is tough, stringy, and rather tasteless; the milk is extensively used instead of cow's milk, and the hides and horns are put to various uses. The natives believe that pieces of burned buffalo horn will cure snake bites. The wild buffaloes occur in Luzón, Mindoro, the Calamianes, Masbate, Negros, and Mindanao. It is said that Mindoro herds sometimes number as many as 200. Hunting them constitutes a most exciting and dangerous sport.

CIVET CATS; 2 species range through the Palawan-Calamianes. A true wildcat of small size has been found in Palawan, Panay, and Negros, and is said to exist in Cebú.

DEER; extremely abundant in many parts of the archipelago, their flesh forming an important article of food, while their skins and horns are put to various practical uses. In Sulu there is a beautiful axis deer. In Basilan, Mindanao, Leyte, Sámar, Luzón, Mindoro, and the Calamianes is. are deer of red or brown colors, without spots when adult. In Masbate, Panay, Guimarás, and Negros is a beautiful dark-colored deer, marked with buff spots.

DOLPHIN; found in the seas of the archipelago.

DUGONG, called woman fish. Beads are made from its tusks.

GALEOPITHECUS (*Galeopithecus philippinus* Wath.); found from Basilan to Luzón, also in Bohol. It has membranes like a flying squirrel, which not only enter between the legs, but reach to the tip of the tail. Its soft fur is highly prized in Europe.

GOATS; from China and Mexico, and breed successfully in the islands.

HOGS, wild, of at least 2 species occur in the Philippines. In some of the islands, notably Tawi-tawi, they are extremely numerous, destroying the crops at night. They are much hunted, both on this account and for their flesh, which is excellent. Domesticated hogs of black color are to be found in numbers in every village. They cross more or less freely with the wild species.

HORSES; originally imported from Mexico, China, or Borneo, are of small size, but well formed and tough. Neither Australian or European horses have thus far done well in the Philippines on account of the intestinal trouble caused by the grass, which is harsh, and the foot disease caused by the great moisture during the rainy season. Good results have been obtained with the American cavalry horses by feeding them with rice leaves or imported hay.

LEMUR (*Nicicebus tardigradus* Fisch); occurs only in Tawi-tawi. It is known to the natives as kokam and to the Spaniards as el vergonzoso (meaning the bashful), on account of its curious habit of hiding its head when approached by man and unable to escape.

MONKEY; a single species has been discovered in the Philippines, the *Macacus philippinus* Geoff, known to the natives as maching or matsin. It is of medium size and commonly tamed by the natives. It not infrequently inflicts considerable damage on growing rice and other crops. Its flesh is sometimes utilized by the natives as an article of food.

OTTER; a carnivorous animal, found in the Palawan-Calamianes group.

PANGALIN; an edentate, or toothless mammal, abundant in Palawan and Calamianes group. It has its whole dorsal region protected by thick scales, and when molested rolls itself into a ball.

Birds.—The species of birds in the Philippines number more than 590, of which at least 325 are peculiar to the archipelago and largely land. The most important species are:

BIRDS OF PREY; there are not less than 45 species, 22 peculiar to the Philippines. They vary from a falcon, the size of a sparrow, to the immense monkey-catching harpy eagle, which is so strong and active that it seizes monkeys as they leap from tree to tree.

COCKS and HENS; resembling red Leghorns, wild and extremely pugnacious; supposed to be descended from the jungle fowl; are snared and domesticated. The cocks are trained to fight.

DUCKS; 5 species known; 1, a mallard, is peculiar to the Philippines. This species and the *Dendrocygna arcuata* (Cuv.) afford fine shooting. The eggs of the latter are used for food.

GULLS and TERNS poorly represented.

HERONS and BITTERNS; 15 species of varied forms, size, and color.

KINGFISHERS; 21 species, all but 6 of which are confined to the Philippines. Many of these are beautifully colored.

MOULD BUILDER or TABON (*Megapodius cumingi* Dillwyn); a bird burrowing 2 or 3 ft. and laying an egg out of all proportion to the size of the body. The eggs are rich in yolk and highly prized as an article of food. The young dig their way to the surface through a mound 4 or 5 ft. high scratched up by the parent bird.

PIGEONS and DOVES; no less than 35 species many of them beautifully colored, and the flesh of all edible. Several of the species are of very large size. The Nicobar pigeon (*Calanais nicobraica* Linn.) is especially worthy of mention on account of its beautiful changeable hues, which vary from deep green to fiery copper red. There are 15 species of rails, coots, and gallinules, their flesh, and sometimes their eggs as well, being eaten by the natives.

HORNBILLS; 12 species, not one of which occurs outside of the island. They wall up the female in the trunk of a tree during breeding, leaving a small opening in the clay through which to pass food.

SNIPE; plover, turnstones, and shore birds in general are very abundant along the coast during the cold season in Asia, but the majority of them migrate N. during the hot season. The Asiatic snipe makes good shooting in November, December, and January. The painted snipe is resident in the islands throughout the year.

STORK; but one species, and comparatively rare.

SUNBIRDS; 24 species, conspicuous for their beautiful colors. Feed from flowers, but have no remarkable powers of flight.

SWIFTS; the variety scientifically known as *Collocalia troglodytes* Gray is of commercial importance as the builders of the edible nests so highly prized by the Chinese for food. These nests, composed of a gelatinous secretion from the salivary glands in the mouths of the birds, sell at high prices, almost their weight in gold, when fresh and clean. The best nests are obtained on the precipitous sides of the Peñon de Coron, between Culion and Busuanga, where the natives gather them at no little personal risk. Good nests are to be had in Guimaras, Siquijor, and at other points.

TAILOR BIRD; 9 species, and noted for its breeding habits and the difficulty of obtaining its nests. They form a sack of leaves sewn together with their bills and spider webs or cocoons, in which they deposit their eggs.

Among the other birds are the frogmouths, bee birds, night hawks, cuckoos (21), cockatoos, parrots and paroquets (19), woodpeckers (19), barbets, broadbills, starlings, orioles, weaver finches, larks, nuthatches, flower-peckers (23), titmice, shrikes and swallow shrikes, thrushes, fruit thrushes, bluebirds, firebirds, flycatchers (42), swallows, pittas or ant thrushes.

Reptiles and batrachians.—A large number of forms is known, the most important of which are:

ALUPONG (Tagalog) or **AGUASON** (Visayan); a deadly venomous snake found in the sea, as well as in the plains and houses, where it goes to seek rats and other small animals for food.

COBRAS; venomous serpents found in the eastern chain of islands and in the Calamianes group.

CROCODILES; abundant in many of the streams and fresh-water lakes, and sometimes in the sea along the coast. They attain a length of 18 ft. In certain parts of the archipelago they are man-eaters.

DAHUN-PÄLAY (rice-leaf snake); a deadly green snake, whose large poison glands give its head a characteristic arrow shape, while its neck is very slender, and body short, thick, and strong. Under this name is also included a number of green snakes, which are absolutely harmless.

FROGS occur in great variety. In the forests is a tree frog with enormously developed membranes between its toes.

GECKOS; 2 species are common in the houses, one small, and feeds on mosquitoes and house flies, the other on insects, and works noiselessly. It has a large, thick body, sometimes 8 in. or more long; is sluggish in its movements, has a loud call, and ordinarily is harmless.

IGUANAS; very abundant in many localities, sometimes attaining a length of more than 5 ft., and able to swallow fair-sized fowls whole. Their eggs are considered a great delicacy, and the flesh of one species, known as *ibid*, *ibit*, or *pelubid*, is very highly esteemed.

LIZARDS; in almost endless variety. Flying lizards are very common in the forests, generally invisible, and only become conspicuous as they fly from tree to tree.

PYTHON or **SAUA**; the largest snake in the archipelago, some specimens measuring 22 ft. 8 in. in length, and 24 in. in circumference. They are expert rat catchers, which they vary as they become larger with chickens, pigs, monkeys, and young cattle. They abound in the Calamianes Islands, Basilan, Mindanao, and Bohol.

SERPENTS exist in great numbers, both nonvenomous and venomous.

TURTLES; the land varieties are small and without commercial value. Sea turtles are large, their flesh being used as an article of food. Tortoises, producing beautiful shell, are also abundant.

The mortality is said to be great from snake bites in Lúbang, NW. of Mindoro, but is not serious elsewhere.

Fishes.—This lowest class of vertebrates presents the largest number of species, both marine and fresh-water, and constitutes one of the chief sources of the food supply. The Philippine waters abound in the order of the **SELACHII**, the sharks, or pating, which sell at high prices, their fins and tails constituting a gelatinous food which the Chinese highly appreciate. The sawfish, the plow-fish or sut-sut, dog-fish, rays, and hammer-fish are also abundant.

Under the order of the **TELEOSTEII** is a great number of species, having the body compressed and the mandibles provided with 8 teeth, placed in 1 single rank on each and covered by true lips; and the trunk-fish, whose body is covered with bony plates.

Representing the suborder of the **LOPHOBRANCHII** are the sea needle, whose body is slender and long and of almost uniform diameter throughout; also the sea horse.

The suborder of **FISOSTOMI** is represented by the eels, notable for their large size; sardines; the Bañgós; the Buan buán, and the shad; the genera *Claria*, *Plotosus*, and *Rita*, which have the skin bare or covered with large bony plates; finally, the tench and the barbels.

Under the suborder of the **ANACANTHIDE** are found the species *Bregwaceros MacClelland* Thoms, characteristic of Philippine waters and very similar to the cod, the turbots and soles, of delicious flesh.

Belonging to the suborder of the ACANTHOPTERI are found the dalag, which abounds in rivers, lakes, and pools, and during the rainy season even in the rice fields; the Martinico; the Sañgaray, of the Pásig River; the Serrano; the Serrato; the Lapolapo of Cebú, and the Bangoongee; the Saramiottele, of fine taste and beautiful colors; the Espanida or gildings, of delicious flesh; the flying fish, and the sea hog; the horse mackerel; the plataco; the vadigo or talang-talang, and the Caranga; the talflong or mnllet; the conger, and the alacaac; the bream and the quiftang; finally, the gobrido of Manila and Angat.

Mollusks.—Mollusks exist in great variety and abundance, among them land shells, with few exceptions, formed by snails, of the most varied form, size, and color, many of them extremely beautiful. The fresh-water and marine forms are very numerous and many of them exquisitely beautiful.

ANTS; the number of species is very large. They occur in countless millions. The most important is the termite, or white ant, called by the natives "anay," which inflicts great damage on wooden buildings, often causing very serious loss.
ARTHROPODA; these "animals with jointed feet" are represented by an enormous number of species.

BEETLES, BUTTERFLIES, and MOTHS are found in endless variety.

CLAM of the genus *Crédula*; the shells of this enormous giant mollusk sometimes attain a length of 5 or 6 ft. and weigh hundreds of pounds. The valves are used for baptismal fonts, and the natives sometimes burn them to make lime.

ECHINOBERMATA, VERMES, COLENTERATA, and PROTOZOA; the damp forests and warm seas of the archipelago swarm with lower animal life.

HONEY-MAKING BEES of 3 species; one of very large size; its combs are built pendent from the branches of trees. The other species store their honey in hollows of timber. One of them is stingless. Honey is an article of food and wax an article of commerce.

LOCUSTS; serious plagues of these sometimes occur, destroying the growing crops. In the province of Batangas, some years ago, a borer appeared which worked in the stems of the coffee bushes and soon wiped the plantation out of existence.

MOSQUITOES; sufficiently numerous in the lowlands, so that nets are necessary for protection at night, and are believed to play an important part in the spread of malarial diseases.

OYSTERS and CLAMS; a number of species, very palatable as food.

PAPER NAUTILUS; very fine specimens of this delicate mollusk are occasionally obtained.

PEARL OYSTERS are found in the S. waters of the archipelago along the coasts of Mindanao, Sulu, and Palawan. The Moros are skillful pearl fishers. The Sulu pearl fisheries are controlled by the Sultan, who rents the privilege of working them.

PEARLY NAUTILUS; very common, its shells being much used for drinking cups.

PLACUNA PLACENTA L.; are split into thin, flat plates, and cut into squares, some 2 in. on a side, and used in place of window glass.

SCORPIONS; several species, some of which are very large and sting severely.

SHRIMPS, CRABS, and LOBSTERS abound in the waters of the coast, or on the banks of fresh-water streams.

SPIDERS are found varying in size from tiny, microscopic creatures to great hairy specimens the size of our tarantulas, which inflict a painful injury by their bite.

STARFISHES AND SEA URCHINS are abundant, their spines being poisonous. Land leeches swarm in damp forests.

TACLOBO; shells are hard, the Moros sometimes pounding them up and ramming the pieces into their rude cannon, using them as projectiles.

WASPS of various species. Some sting most viciously.

WONDERFUL CORAL BEDS exist in the southern islands, displaying beautiful forms and colors in the depths below, and showing the activity of the coral polyp.

The prevalence of amebic dysentery shows the existence of protozoa.

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PHILIPPINE CHRONOLOGY, 1519 TO 1901.

I. DISCOVERY AND EXPLORATION.

1519. Hernando de Magellan's flotilla sailed from Seville, Spain.
 1520. Magellan passed the strait which was named for him.
 1521. Magellan landed at Butúan, in the north of Mindanao: raised the cross on a small hill, and celebrated mass for the first time in the Philippine Islands. Magellan took possession of the island in the name of the King of Spain. Alliance between Hamabar, the King of Cebú, and Magellan. Death of the latter on the small island of Mactán, opposite Cebú, Cebú. Duarte de Balbosa and 26 companions were treacherously assassinated at a banquet by order of Hamabar.
 1522. Remnants of the expedition reached Seville in the ship *Victoria*, commanded by Don Juan Sebastian del Cano, thus completing the first circumnavigation of the globe.
 1525. Expedition of Frey García José Loaisa sailed from Coruña, Spain.
 1526. Loaisa passed the Strait of Magellan, where a violent hurricane scattered part of his ships. Loaisa and Sebastian del Cano died on the Pacific. Capitana went to Mindanao, and upon attempting to reach Cebú was driven by tempests to the Moluccas.
 1527. Expedition sailed from Mexico under the leadership of Alvaro de Saavedra.
 1528. Saavedra arrived at Mindanao, where he provided himself with stores, and then went to the Moluccas.
 1542. Armada of Ruy López de Villalobos sailed from the port of Juan Gallego, in Mexico.
 1543. Villalobos reached Southern Mindanao. Gave the island of Leyte the name "Filipina," which was afterwards extended to the entire archipelago.
 1549. Remnants of the expedition of Villalobos reached Spain.

II. SPANISH DOMINION ESTABLISHED.

[The names of the governors-general for the corresponding years in this chronology will be found under "Civil government."]

1564. Armada of Don Miguel Lopez de Legaspi raised anchor at Natividad, in Mexico. Augustin monks joined the expedition.
 1565. Islands of Leyte, Camiguín, Bohol, and Mindanao were visited and the flotilla then anchored at Cebú. Distrust and hostility of those islanders.
 1567. Legaspi sent his tender to Mexico under command of Juan de la Isla.
 1568. Two galleons arrived at Cebú with troops, munitions, and arms, and with them Don Juan de Salcedo, called the Hernando Cortés of the Philippines. Portuguese squadron under command of Gonzalo Pereira anchored off Cebú. The purposes of the latter were frustrated by the firmness of Legaspi.
 1569. Legaspi transferred his encampment to Panay. Three vessels, commanded by Juan de la Isla, arrived with dispatches from the King, conferring on Legaspi the governorship of the islands and the title of adalantado.
 1570. Expedition under the orders of Don Martín de Goiti and Don Juan de Salcedo sailed from Panay to study the conditions about Manila. Favorable reception of the Spaniards by Rajah Lacandola and Rajah Soliman. Treachery of the latter and his destruction.
 1571. Legaspi took possession of Manila. Subjugation of certain provinces of Luzón by Don Martín de Goiti and Don Juan de Salcedo. Legaspi established commercial relations with the Chinese. Arrival of two ships with reinforcements at Cebú.
 1572. Subjugation of new provinces by Salcedo. Death of Legaspi. Complete submission of Zambales, Pangasinán, and Ilocos to Goiti.

1573. Submission of Camarines to Salcedo.

1574. Attack of the Chinese pirate Li-Ma-Hong on Manila. Heroic defense. Opportune arrival of Salcedo and defeat of Li-Ma-Hong.

1575. Salcedo attacked Li-Ma-Hong at Lingayén, Pangasinán. Flight of Li-Ma-Hong.

1576. Early death of Salcedo. (See 1568.)

1577. Arrival of the first expedition of Franciscan monks.

1578. Fortunate expedition of Don Francisco de Sande to Borneo. He restored its legitimate King to the throne, and the latter offered vassalage to Spain. Sulu and Mindanao tributaries to him.

1580. Chinese were compelled to live together under Spanish canons.

1581. Arrival at Manila of its first bishop, Fr. Domingo Salazar. With him came the first party of Jesuits. Beginning of work upon the cathedral. Second expedition to Borneo to restore the King to his throne.

1582. Victory won by Pablo Carrión, in Cagayán, Luzón, over the Japanese corsair *Taijusa*. Expedition to Ternate, in the Moluccas, under command of Lorenzo de Cartagena.

1583. Death of Governor-General Ronquillo. During his funeral ceremonies the temple of San Agustín burned. The fire spread to the citadel; two-thirds of Manila was destroyed. Building up of Manila. Pacification of certain towns which had revolted because of the excesses of the military commander.

1584. Establishment of the royal audiencia of the Philippines. The governor, under ample authority from the King, checked the abuses of military leaders. Construction of a stone fortress at Manila.

1585. Unfortunate expedition to Ternate, in the Malay Archipelago. A conspiracy provoked by the Jewish Moros was discovered among the natives of Pampanga and Manila. Capture of the ship *Santa Ana* by an English corsair.

1587. Arrival of the first expedition of Dominican monks. An artillery foundry established. Hospital for Spaniards founded.

1590. Construction of the walls of Manila and of Fort Santiago. Suppression of the royal audiencia by royal decree. Establishment of the College of Santa Potenciana for the orphans of military men.

1591. Arrival at Manila of Faranda, the ambassador of Taicosama, the Emperor of Japan.

1592. Dasmariñas sent ambassadors to the Emperor of Japan.

1593. New embassy to Japan. Coming of the King of Siao to Manila to offer obedience to King Philip II, to whom he cedes the island; and, further, to ask the aid of the Spaniards against the pagans of Ternate, resulting in a strong expedition to the Moluccas, under command of Dasmariñas, to help the King of Siao. Dasmariñas assassinated by Chinese oarsmen at Santiago Pt. Suspicions aroused by large number of Chinese junks arriving at Manila.

1594. An embassy sent to China to obtain the surrender of the assassins of Don Gómez Pérez Dasmariñas without result. Foundation of the Obra Pía de la Misericordia.

1595. Expedition of the governor to Nueva Vizcaya, Isabela, and Cagayán resulted in the subjugation of those regions. By virtue of a royal cedula each religious order had assigned to it the provinces in which it might exercise administration over spiritual affairs.

1596. Expedition to Mindanao, under Capt. Rodríguez de Figueroa. Ascended the Río Grande. At Buhayen a Moro treacherously killed him.

1597. Don Juan Ronquillo went to Mindanao to take the place of Figueroa. Destroyed the fleet of Moro boats from Ternate, which came to the help of the Moros in Mindanao, and as a result of victory the Moros of Mindanao and Sulu became vassals of Spain. Ronquillo abandoned the acquired territory. News received at Manila that the ship *San Felipe* had been driven to Japan; that Taicosama had taken possession of her rich cargo.

1598. Dispatches received creating the archbishopric of Manila, and the bishoprics of Cebú, Nueva Cáceres, and Nueva Segovia. Reestablishment of the royal audiencia.

1599. A powerful fleet of Moro pirates infested the coast of Cebú, Negros, and Panay, causing great loss of life and property.

1600. A naval victory won off Mariveles, Bataán, Luzón, over the Dutch corsair *Oliveria Van Noort*. A fleet of Moro pirates attacked the town of Arevalo, in Iloílo, Panay, and was defeated. Earthquake at Manila.

1601. Foundation of the college of San José under the direction of the Jesuits.

1602. Expedition to Sulu under command of Gallinato; returned for lack of supplies. Commercial relations were established with Daifusama, Emperor of Japan.

1603. A conflagration destroyed a third part of Manila. Uprising of 20,000 Chinese. Spaniards, natives, and Japanese unite and completely overcome the Chinese.

1606. Fortunate expedition to the Moluccas. First mission of Recoléta monks arrived. Uprising of the Japanese; were conquered and prohibited from living in future together in one ward. Dutch corsair, *Blanquardo*, defeated and captured by Don Pedro de Heredia. Blanquardo taken to Ternate; obtained his liberty by paying a heavy ransom, but later was again made prisoner and taken to Manila.

1609. Dutchman, F. Witter, ordered a landing at Otón (in Panay), but Don Fernando de Ayala, who had laid in ambush near the beach, fell unexpectedly upon the Dutch, who had disembarked, and destroyed them.

1610. F. Witter took up a position off Mariveles, Bataán, Luzón, and made prizes of various Chinese and Japanese vessels. Defeat and death of Witter at Mariveles brought about by a Spanish squadron under Don Juan de Silva. Rich booty captured from the Dutch.

1615. Ruy Gonzales de Segneira arrived at Manila with reenforcements, coming by way of the Cape of Good Hope. The Portuguese viceroy, at Goa, asked to cooperate in Silva's plan of sending a strong armada against the Dutch.

1616. Don Juan de Silva sailed at the head of a powerful armada against the Dutch. The squadron of the viceroy of India was burned by the Portuguese before it fell into the hands of the Dutch. Silva arrived at Malacca, where he was received with triumph as a liberator. Silva died shortly after his arrival at Malacca. Dutch Admiral Spielberg bombarded Iloílo, Panay. Disembarked and was defeated by Diego Quiñones. A fleet of 24 canoes, manned by Moros, allied with the Dutch, was destroyed by Flores in Punta Potol, in the south.

1617. In a naval combat at Playa Honda, Spielberg was completely defeated by Don Juan Renquillo. A fleet was stationed at Iloílo, Panay, to intercept the Moro piratical expeditions.

1618. The personal services required of the natives lessened.

1620. Combat in San Bernardino Straits between three Spanish and three Dutch vessels.

III. THE ROYAL PLEDGE NOT TO ABANDON THE PHILIPPINES.

Moraga, an ecclesiastic, obtained from Philip III a promise not to abandon the Philippines, as some of his advisers counseled him.

1621. Franciscan monks founded the monastery of Santa Clara. Uprisings in Bohol and Leyte quelled.

1623. Two expeditions against the Igorrotes.

1624. Don Gerónimo de Silva defeated seven Dutch vessels off Corregidor, Manila Bay, Luzón. Instead of pursuing his scattered enemy, he ordered his fleet to return to Cavite, on account of which he was shut up in Fort Santiago.

1625. Piratical expeditions from Borneo infested the coasts of Sámar and other islands, doing great harm. The fleet from Iloilo followed them, and failing to overtake them on the sea, went to their country and punished them.

1626. Expedition to Formosa. Tanchuy occupied.

1627. A strong armada sailed under the orders of the governor for Formosa. Bad weather compelled it to return to Manila, but the ship *Rosario* arrived at Tanchuy. The Dutch attacked this port and were defeated. The alcalde of Cebú, Don Cristóbal de Lugo, visited Sulu, and afterwards Basilán, to punish the Moros for piracy.

1628. Plague at Manila. Expedition under Olaso against Sulu with little results.

1629. Great conflagration at Cavite.

1630. More fortunate expedition of Pedro Tonsino, commander of Dapitán, off Zamboanga, Mindanao, against Sulu. Arrival of the ambassadors of Camboja, offering free trade and a shipyard for the construction of vessels.

1631. The construction of a stone bridge across the Pásig.

1632. Foundation of the college of Santa Isabela for girl orphans of Spanish birth.

1633. The archipelago afflicted by bad crops, famine, epidemics, a plague of locusts, volcanic eruptions, and Moro piratical expeditions.

1634. Moro pirates numbering 15,000 lay waste the Visayan Islands, and sacked the capital of Tayabas, Luzón.

1635. Foundation of the fort of Zamboanga, Mindanao, to hold in check the piracy of the Moros.

1636. The pirate Tagal, on his return from his excursions among the islands, laden with booty, was overtaken at Punta Fleches off Maligay Bay by the fleet from Zamboanga, under Don Nicolás González, who won a complete victory. Three hundred Moros lost their lives, Tagal among them, and many captives were rescued.

1637. Coreueña went to Mindanao and destroyed Lamitan, the seat of government of Sultan Corralat, and attacked a formidable hill, which was his last defense. The Moros of Buhayen and Basilan sue for peace, and rendered homage to Spain.

1638. Coreuera arrived at Sulu. Obstinate resistance of the inhabitants of that island, but were finally overcome. Coreuera returned to Manila after leaving at Sulu a garrison of soldiers and establishing a mission. He entered in triumph with the booty captured from the Moros. Establishment of a number of outposts on Mindanao.

1639. Uprising of the Chinese at Calamba, Laguna. Their forays against San Pedro Macate, Taytay, and Antipolo, and ultimate defeat and submission. College of San Juan de Letran founded under the Dominicans. Don Francisco de Atenza conquered the Moros of Lanao and took possession of the celebrated lake bearing this name. Victories of Don Pedro de Almonte over the Moros in Mindanao and Sulu.

1641. Three volcanoes broke forth—one in Sulu, another in Sangüil, in the southern part of Mindanao, and a third in Aringay, in the north of Luzón.

1642. Dutch attack the fort of Tanchuy in Formosa. The Spanish garrison, lacking help, surrendered with the honors of war and returned to Manila. As a precaution against an attack by the Dutch, Coreuera repaired the walls of Manila, mounted cannon, got together a large quantity of munitions of war, cleared the field for military operations, destroyed buildings, and made similar preparations in Cavite.

1645. Earthquake at Manila, called the earthquake of San Andrés, having occurred on that day, the earthquakes following each other at intervals of five days. The victims numbered 600. Peace was established with Corralat. The Dutch summoned by the Sulu natives attacked the Spanish fort at Sulu and Ugalde, which repulsed them.

1646. The Spanish troops retired from Sulu after the Sultan had signed a very honorable treaty. Spaniards defeated at Bolinao, Zambales, Luzón, a powerful Dutch squadron. Three other victories were obtained over Dutch ships.

1647. Thirteen Dutch galleons attacked Cavite; defended by Don Andrés de Asaldeguí until the Dutch admiral was mortally wounded and retired. The Dutch disembarked at Abucay and seized the defenseless town, committing abuses, and reembarked; pursued.

1648. Victory of the little squadron from Zamboanga won over the Sulu squadron, the Moro prince, Paquian Cachele, being wounded and taken prisoner.

1651. Successful expedition to Borneo to punish the pirates of that island. Uprising of the Visayans under a pretext of an order of Fajardo compelling them to go to Cavite to aid the Tagálogs in the construction of ships.

1654. Cathedral having been ruined by earthquakes, the first stone of the new one was laid.

1655. Corralat, Sultan of Mindanao, broke treaty of peace.

1656. Famine and misery in the islands as a result of a great plague of locusts.

1657. The governor of Zamboanga pursued the pirate Balatamatay, and not finding him on the sea, invaded his country and destroyed a number of Moro towns.

1658. A great earthquake.

1660. Uprising in the provinces of Pampanga and Pangasinán, Luzón, quelled without bloodshed.

1662. Chinese pirate Koseng demanded the submission of the archipelago, with serious threats. Uprising of the Chinese in the suburbs of Manila and their subsequent submission.

1663. Koseng died. His son desisted from preparations for war and sent an ambassador to arrange commercial treaties. In order to concentrate the Spanish forces the garrison of Zamboanga retired; the Moros resumed their piratical expeditions.

IV. COMMERCE ESTABLISHED WITH AMERICA, ASIA, AND THE ARCHIPELAGOES.

1664. A regular departure of ships for Acapulco, Mexico, established. Shipyards in the provinces begun where it was easiest to obtain timber. Embassies sent in the interest of commerce to Camboja, Siam, and Batavia.

1667. Expedition to subdue the Igorrotes.

1669. Embassy of Juan Enríquez de Lozada reestablished commerce with Macao, China (Portuguese) and established it with Canton and Ningpo, China.

1671. Bay of Manila visited by numerous vessels and commerce is very active.

1677. Missionary movements to China, Japan, and Siam. Earthquakes frequent, although not very strong.

1678. The development of commerce encouraged.

1679. Don Fernando de Valenzuela arrived, exiled to these islands; he had been the first minister of Carlos II.

1685. An epidemic of smallpox caused great mortality.

1686. Loss of crops on account of superabundant rainfall.

1687. A conflagration destroyed the greater part of the suburbs of Baybay and Tondo, Manila.

1688. Don Francisco de Campos Valdivia arrived at Manila and restored the royal audiencia, which had been destroyed, together with the prison of Oidores.

1689. Fuertes maintained public quiet and held in check the rebellious spirit.

1690. The construction of a number of edifices, such as the royal audiencia, the auditor's office, the prison of Corte, and the beginning of the royal storehouses attributed to this period.

1691. The galleon *San Jose* is lost and 400 people perish.

1701. Commerce flourishing.

1704. The galleon *Rosario* had a combat with two English ships of war, which were compelled to retire. The Sultan of Sulu visited the Sultan of Mindanao; on account of supposed offenses they came to blows, with the result that both were killed. The nephew of the deceased sultan of Mindanao asked help of Zabalburu, who pacified the Moros.

1706. The cultivation of cacao, introduced from Mexico.

1709. All Chinamen above a certain number compelled to return to their country.

1718. Re-established the presidio of Zamboanga. Constructed a presidio at Labo, in the southern part of Palawan. Bustamante sent his nephew as ambassador to the King of Siam in order to arrange treaty of commerce. The temporary governor, Torralba, was accused of a heavy embezzlement and imprisoned.

1719. Rebellion broke out, and the mob assassinated Bustamante and his son. Re-established the royal audiencia and took summary measures against the promoters and perpetrators of the assassination of Bustamante.

1720. Five thousand Moros besieged Zamboanga for 2 months; the governor saved the city. The council of war decreed the abandonment of the presidio at Labo.

1721. The Moro pirates invaded without result.

1723. A new expedition against them recovered the *Sabanilla* and caused the death of many, among them several chiefs.

1725. Sultan of Sulu sent to Manila a Chinaman named Kikan to sue for peace.

1726. Signed at Sulu an agreement between the Sultan and Spain. The Moros immediately resumed their piratical operations. Seventy prahoes manned by Chinese pirates were overtaken and completely destroyed.

1729. Valdes repaired the fortifications and provided armaments for the plaza.

1730. A fleet of 20 vessels, manned by 3,000 Sulu pirates, caused great damage among the islands of the south and made an attack on Taytay, which Don Pedro Lucena successfully defended.

1731. A strong squadron sailed from Cavite to Sulu and punished the Moros, burning towns, ravaging the fields, and killing many. The Sultan of Tamontaca asked aid of the Spaniards against Prince Malinog, the ally of the Dutch. Assistance was furnished and a great victory achieved.

1733. A conflagration destroyed the royal storehouses.

1734. Fruitless expedition was sent in aid of the Sultan of Tamontaca. The Moros attempted to surprise the presidio of Zamboanga, but were repulsed.

1735. Two thousand Moros made an attack on Taytay. Brilliant defense of this town. Three large Dutch war ships anchored in the bay of Manila, demanded a vessel of their nation which had been made a prize in the waters near Mindanao, and an agreement was reached with them. There arrived a royal edict which settled in favor of the commerce of Manila the vexatious question of the introduction into America of silks from China.

1737. An expedition sent to Sulu to ratify a compact of peace with the new ruler of that island.

1741. Arrangements made for the defense of the coast and pursuit of the Moro pirates.

1742. The English Admiral Anson captured the ship *Coradonga* on the voyage from Acapulco, Mexico.

1743. A squadron set forth in pursuit of Anson, but returned without success.

1745. Insurrection in Batangas. Fortifications to defend the plazas built; the casting of cannon of caliber 18 ordered; a suitable amount of munitions of war in the governor's storehouses authorized.

1747. Two Dutch ships made a futile attempt to take possession of Basilan.

1749. Ali-Mudin, Sultan of Sulu, arrived at Manila, asking to be placed again upon his throne, which he said had been usurped by Bantilan.

1750. Ali-Mudin received baptism. The piracy of the Moros continued with the aid of Bantilan.

1751. A squadron sailed to place Ali-Mudin again upon the throne of Sulu under the name of Fernando I. While the latter remained at Basilan, the squadron went to Sulu, and later to Zamboanga. He was sent a prisoner to Manila.

1752. Expedition to Sulu with little result. An expedition to take possession of Palawan was obliged to return to Manila. Two thousand Moros besieged Iligan unsuccessfully.

1754. All the ocean regions of the archipelago were invaded by Moro pirates, who carried terror and misfortune wherever they landed. This was the worst piratical movement on the part of the Moros up to the date indicated. A squadron pursued them. The governor reorganized the militia, changed the uniform, created what was called the King's Regiment and 4 brigades of artillery, established artillery schools, and equipped the arsenal and storehouses of Cavite and the ship from Acapulco. A terrible eruption of Taal attended with sad results. A plague arose produced by the multitude of fishes, killed by the eruption, floating upon Tan Lake. The fleet off Iligan, Mindanao, destroyed 150 hostile boats and killed 3,000 Moros.

1755. Arandia expelled the Chinese pagans, and constructed an alcayceria, where Chinese who came to engage in trade were obliged to reside temporarily. Chinese who accepted Christianity were permitted to remain in the islands, but only for the purpose of tilling the soil, being prohibited from engaging in business. A presidio was constructed at Misamis and the fort of Tandag repaired. An expedition under Don Pedro Zucarins Vilareal went to Sulu, where peace was announced between Bantilan and the Spaniards, but once more the Moros broke their agreement.

1756. Don Pedro Gatzanibide won a victory over 38 piratical vessels off the coast of Batangas.

1761. Rojo took command by virtue of a royal edict. He showed himself kindly disposed toward Ali-Mudin, whom he wished to place again upon the throne of Sulu.

1762. An English squadron of 13 ships, with more than 6,000 men, under command of Admiral Cornish, and Brigadier Draper, arrived at Manila, which was unprepared to resist attack. Treacherous conduct of the Frenchman Fallet, and of the Spanish-American Orendian. The junta of authorities names Anda governor; left Manila and went to Bulacan. Capture and sacking of Manila by the English. Anda in Bulacan as governor prepared for the defense of the country. Up risings in the provinces took place.

1763. Expedition of the English to Bulacán. Asturian Bustos harasses the English, who retire to Manila, after burning the convent and church of Bulacán. Bustos established his general headquarters at Malinta, from which place he makes forays, even to the suburbs of Manila. Provisions grew scarce in the latter city.

V. RESTORATION OF SPANISH DOMINION.

1764. Anda received dispatches from the King informing him of the treaty of peace with the English. The new Spanish governor arrived to whom Anda turned over the governorship of Pampanga. Triumphal entry of Don Simón de Anda into Manila after the evacuation by the English. La Torre made good, so far as possible, the injuries which war had inflicted on the country.

1765. The frigate *Buen Consejo* came to the Philippines by way of the Cape of Good Hope, thus inaugurating direct communication between Spain and the Philippines. Two eruptions of the volcano Mayón.

1767. A Moro piratical expedition entered the Bay of Manila.

1768. The Jesuits were expelled from the Philippines by order of Carlos III.

1769. Order that the Chinese be expelled from the Philippines only partially fulfilled.

1770. Anda repaired the walls of Manila and within a few months brought about the construction of several war vessels.

1773. The frigate *Descada* was dispatched to Batavia, Java, to reestablish business relations.

1775. Moros assassinated the garrison left by the English in the island of Balambangan.

1776. Sarrio provided a little fleet of light boats to pursue the pirates, and obtained good results.

1778. Ismael, the sultan of Sulu, was poisoned by the partisans of the sons of Bantilan.

1778. A desire to develop agriculture. Seeds obtained from other countries, and more than 4,000 mulberry trees were planted in Camarines Sur for feeding silkworms. Basco rids the country of evil doers. Don José Gómez combats piracy, distinguishing himself in pursuit of the pirates; eventually dislodged them from Mamburao, Mindoro, where they had established forts. The order for the expulsion of the Chinese was revoked.

1779. Basco granted rewards to those who were conspicuous for their success in agriculture.

1781. The Sultan of Sulu sued for peace and returned a captured vessel. Established the Economical Society of Friends of the Country.

1782. The tobacco monopoly was established, and considerably increased. Successful expeditions to Burias I.

1783. Preaching in the Batanes Islands, which were annexed to the Crown of Spain.

1785. The King authorized the creation of the Royal Company of the Philippines.

1787. The Ilocanes revolted on account of the tobacco monopoly, but afterwards submitted.

1788. The appointment of the cabezas de barangay was made by the provincial chiefs, on the nomination of the headmen of the town.

1790. Marquina submitted a "plan of reform," which should be made in the Philippines, and approved of "instructions" which tobacconists must observe in regard to the tax on wines.

1793. On account of the war with England, the fortifications strengthened; the navy augmented; established a dockyard at Corregidor, and 10,000 men under arms.

1794. A bastion was constructed in Binondo, which dominated La Barraca.

1796. Great earthquake.

1797. Squadron sailed in pursuit of an English convoy, but encountered a typhoon.

1798. An English squadron flying a Spanish flag arrived at Zamboanga. The governor defeated the enemy and saved the plaza. The Moros made an attack on Baler, Casiguran, Palanan, Luzón.

1799. An order was issued for a definite census of the natives; also an order prohibiting the secretion of fractional silver currency. The frigate *Pilar* arrived with \$1,200,000, thus relieving the financial difficulties.

1800. The marine comandancia was created. Foreigners were prohibited from living in the Philippines.

1801. Raón's "Ordinances of Good Government" were suppressed.

1803. A magistrate was sent to Mindoro in order to promote the development of the island. The English again took possession of the island of Balambangan.

1805. English again attacked Zamboanga and were defeated. Sainte-Croix was commissioned to investigate the gold mines of Mambulao in Camarines, and later published his report. The complete independence of the Manila custom-house was decreed by royal order.

1806. English abandoned Balambangan.

1807. Uprising in Ilocos Norte, Luzón, was subdued.

1809. French sloop of war *Mosca* attacked Batangas, Luzón.

1810. Aguilar proposed the suppression of ships to Acapulco and to concede to merchants the right to fit out private ships for voyages to America.

1811. Publication of the first newspaper in the Philippines, with this began Del Superior Gobierno. Uprising of fanatics who proposed to found a new religion.

1813. The constitution of 1812 published in Manila. By the decrees of the Cortes, the ship to Acapulco, Mexico, was suspended. The last one started in 1811 and returned in 1815. The Moros attempted in vain to take Zamboanga. Gardoqui encouraged agriculture.

1814. Movements originated in the Philippines for the publication and revocation of the constitution of Cádiz. In Laoag, Ilocos Norte, Luzón, Vicente Febro, the Augustin parish priest, founded a hospital for lepers which was the first establishment of the kind in the Philippines. The English attempted to take possession of Sulu and Mindanao. Introduction of opium was prohibited. Great eruption of the volcano of Mayón.

1817. Expedition to the country of the savage Mayoyaos in Nueva Vizcaya.

1818. Naval victory over the pirates on the coast of Albay. Restoration of the fortifications of Zamboanga, Mindanao.

1819. The Royal Economic Society of the Philippines reestablished.

1820. Royal cedula, according to which there was conceded the suppression of duties during ten years on natural and industrial products of the Philippines imported into Spain in ships flying the flag. Choiera in Manila. Prevalent among the natives; a belief that the foreigners had poisoned the waters. The mob assassinated the English and French residents in Manila to the number of 28; afterwards attacked the Chinese.

1821. The constitution of 1812 was again sworn to in Manila. Creation of the naval academy.

1822. With Martínez many officials from Spain came to the Philippines, following the counsel which had been given to Folgueras, because those already there were almost all Spanish-Americans. Martínez sent to Spain various persons who, it was said, were in conspiracy. Captain Novales provoked an uprising in which Don Mariano Fernández Folgueras was assassinated, but it was promptly suppressed by the local authorities.

1824. Strong earthquake in Manila. The statue of Carlos IV was placed in the Plaza del Palacio. Expeditions against the pirates, who were punished and suffered loss.

1825. A painting of Fernando VII was given the reception which would have been given to the royal person if he had come to the island. Issued orders to encourage agriculture.

1827. An expedition to suppress the rebellion in Bohol.

1828. Riafort prohibited strangers from going into the provinces to acquire products of the country. The royal order commanded the protection and cultivation of cotton and the introduction of machinery for making thread and cloth of said article. Royal order commanded the establishment of a mint in Manila. Earthquake in Manila.

1829. Ordered a reformation in the general management of the Chinese residents in these islands.

1830. Arrival in Manila of the expeditionary regiment of Asia in consequence of a request to Spain for European troops and the reorganization of the regiment of the King. A general map of the archipelago made, profiting by the knowledge acquired in expeditions. Roadways and smaller paths were made connecting with these, and several bridges were built. By royal order the 8 districts fronting the Moros were declared military and political penal.

1832. By royal order the commercial code promulgated in Spain was extended to the Philippines with such variations in its application as the archipelago required.

1834. "La Gata de Forasteros" published with interesting notices.

1835. The board of trade was organized. Cramer issued a decree in regard to the government of the archipelago. Officers of the veteran army were placed as commanders of the provincial militia. A gradual impost by stamps on bills of exchange established.

1836. Decreed that simple pesetas have in the islands the value of 4 reales, as they had in Spain, and not of 5 reales as they had in the archipelago. A treaty of commerce was signed with the Sultan of Sulu.

1837. A department of inspection of mines was organized in the islands. Camba declared to the government that the plans adopted of making peace and alliance with the Sultan of Sulu did not bring a single decided advantage to navigation or to commerce. Manuel Blanco, Augustin Father, published *La Flora de Filipinas*.

1838. The post-office department began its work according to the reforms published the year before. There was created in Spain a consulting committee for the business of the colonies.

1839. Lardizabal, who was a Visayan, gave the name of Nueva Vizcaya to a new province which was formed from the province of Cagayán. Recognized the excellent quality of Philippine tobacco and at the same time the defective methods of manufacture. Measures taken to prevent adulterations. There was published in Manila a weekly paper entitled *Current Prices of Manila*.

1840. Inauguration of school of commerce. Orders issued in regard to the rightful censorship of books. There was created a committee for the control of manufactures and a general administration of taxes. A project for a monument to Magellan, in the island of Mactan, Cebú, proposed.

1841. Sedition in Tayabas, Luzón, promoted by Apolinario de la Cruz, called by his fanatical followers, King of the Tagalogs, and to whom they attributed supernatural powers. These rebels were completely overthrown by Commandant Huert. There was created by royal order the Gobierno Intendencia de Visayas, with its capital in Cebú.

1842. A circular issued recommending the discovery of coal mines. Order concerning the free construction of ships. Regulations for the control and policing of the bay and port of Manila published.

1843. A subdelegation of medicine and surgery established. The shipyard of Masbate was transferred to Cebú. Certain rules were published to the consignees of the Chinese sampans in regard to unloading. Authorization to the Chinese to use opium, it being declared at the same time to be a monopoly.

1844. Took possession of the island of Basilán to better control the Moros. The Indians and half-castes were prohibited the smoking of opium. Aleala regulated the offices of the treasury, organized the army, indicated the necessity of licenses for the use of arms, and published dispositions in regard to the affairs, passports, carriages, and other matters. Claveria, with the consent of the ecclesiastical authority, reformed the calendar in the Philippines to conform to that of Spain and America, suppressing the 31st day of December, 1844; therefore, the archipelago found itself a day in advance. Commands the building of a fort in the island of Basilán, which was occupied by his predecessor. Ordered that the alcaldes should be educated. Prohibited the chiefs of provinces from engaging in commerce. The French attempted to take possession of the island of Basilán.

1846. Rules for the development of mineral industries.

1847. Fire reduced to ashes suburbs of Santa Cruz and Quiapo, Manila. An expedition sent to subdue the bloody savages of Mayoyaos, Nueva Vizcaya. Important conquest of Dávao on the S. of Mindanao. A body of constables was created for public security against criminals. Political and military governors were prohibited from engaging in commerce.

1848. Expedition to the islands of Balanguingui, Sulu A.; destroyed the towns of the pirates, with the death of many Moros and the rescue of 200 captives, several of these Dutch from Java. There was purchased in London the steamers *Magallanes*, *Eleano*, and *Reina de Castilla*, which were the first ships of this kind seen in the Philippines. Erection of the monument to Magellan in Manila.

1849. The regular clergy were prohibited from transferring their property without previous royal license. The organization of bodies of police in the provinces. Creation of an academy of drawing and painting. Blanco formed a body of vaccinators, and obliged all children to be vaccinated. Monthly lottery was established in Manila.

1850. The Moros from Sulu attacked Sámar and Camiguín. Permission granted to the planters to introduce Chinese, who were to devote themselves exclusively to agriculture. The governintendencia of the Visayas was suppressed.

1851. Urbiztundo directed an expedition to Sulu, destroyed the forts and captured 112 cannon, reduced to ashes the quays and a multitude of boats. The tobacco from Cagayán, in the N. of Luzón, was given a premium and gold medal at the Universal Exposition in London.

1852. Inauguration of the suspension bridge which united Arroceros with Quiapo, Manila. The Spanish-Philippine Bank began its operations. A prison was established in Polloc, Cotabato, Mindanao. The official bulletin of the Philippines was established. Various earthquakes were felt.

1853. Eruption of the volcano of Mayón.

1854. On the island of Basilán a company of soldiers were assassinated by the Moros. A monthly mail between Manila and Hongkong commenced. An earthquake was felt in Manila, and the suburb of Tondo razed. A multitude of royal orders arrived, relieving almost every official in the archipelago.

1855. The tribunal of commerce was established. Captured in the waters of Sulu a pirate boat, and soon afterwards at Balanguingui, Sulu A., a pirate fleet, that time being constructed by the Moros. The name of the province of Manila was given to that which up to this date was called Tondo. A cyclone caused great destruction. Eruption of the volcano Macaturin Mindanao.

1857. The clandestine introduction of immoral books with immoral pictures caused a decree to do away with this evil. Decreed that the official accounts should be carried on in the decimal system. Authorized the establishment of houses for the exchange of money. Published a very energetic decree against criminals.

1858. An expedition of 1,500 men started from Manila for Cochin, China, to aid French. Established a politico-military government in the island of Balabac. Published a proclamation for the defense of fishing towns, and sent an expedition to Simisa, which was garrisoned by piratical Moros, and another against the island of Filas, causing in each great injury to the Moros and rescuing various captives. Beautified Manila and its surroundings and organized the botanical gardens.

1859. An aerolite fell in the town of Mexico, in Pampanga. A civil government for the province of Manila created. The Maritime Mutual Benefit Society founded. Various improvements in the war department ordered, among others the change of uniform for the army to one more suitable for the climate of the country. Ordered the demolition of the "Parian," and accomplished in spite of difficulties. The market of Quinta, Manila, is opened to the public.

1860. An order in regard to the duties of petty governors issued. Madrazo and Malcampo pursued the pirates with good results. The printing Antes Acordadas was authorized.

1861. The official bulletin of the Philippines took the name Manila Gazette, by royal order of the previous year. A politico-military government established in Visayas, and another in Mindoro. Coining in the mint of Manila begun. The School of Botany and Agriculture established. Gunboats with hulls of steel and light draft arrive in the islands and began a vigorous and successful campaign against the pirates.

1862. The archipelago afflicted by cholera, fire, flood, cyclones, and locusts. By royal decree a royal delegate is created to study the various branches of administration. The gunboats continue the pursuit of the pirates.

VI. REPRESENTATION IN THE MINISTRY.

1863. Creation of the minister for the colonies. Great earthquake, which almost reduced Manila to a mountain of ruins, with the death of 400 persons and the injury of some 2,000.

1864. The ayuntamiento founded a municipal school for girls in charge of the Daughters of Charity. Lightning fired the general storehouse of tobacco, with a loss of \$2,000,000. Traitorous conduct of the Dato Uto in the Rio Grande, Mindanao.

1865. A great fire destroyed a large part of the suburbs of Tondo, Santa Cruz, and Quiapo, Manila. The School Ateneo Municipal acknowledged as an institute of secondary instruction.

1866. Rules for the taxation of the Chinese. A government place of deposit established. The Moros of Supangan and Symuay conquered. The government carried out the royal order for the creation of a general inspection of public works and the royal decree approving the organic laws of civil careers in the political administration of the colonies. A commission was named to study reforms in the penal code for the colonies. A central committee of agriculture, industry, and commerce created in Manila. The squadron of the Pacific proceeded from Callao, Peru, S. A., and arrived in Manila. Many improvements were made in Manila and its suburbs.

1867. Great floods in Manila and Ilocos, Luzón.

1868. An expedition sent for the punishment of the savages in N. Luzón.

1869. Establishment on the guardia civil. Pardon of criminals and the formation from them of the company of Guias de la Torre (Guides of the Tower) to pursue criminals, which multiplied crimes and disturbances.

1870. Several hundred vagabonds deported to Balabac and Mindanao. The remains of Anda transferred to the Church of San Francisco.

1871. The orders of the ministers of colonies secularizing the University of Secondary Education. Enforced, and orders suspended. Eruption of the volcanoes of Camiguin and of Mayón. Gunboats destroyed several pirate boats and burned towns.

1872. A conspiracy, which failed in Manila and was transferred to Cavite, put down. King of Camboja, Norodom I, visited Manila. The veterans' civil guard for public vigilance and services in Manila and its suburbs was established. Tornado in Manila. A politico-military government was established at Palawan and Zamboanga. The electric semaphor line from Manila to Punta Restinga was established.

1873. A telegraph line opened in various provinces of Luzón. In the mountains of San Mateo and Bosoboso Rizal Luzón encounters between civil guards and bandits. A line of Spanish steamers was established between the archipelago and Spain. Ports of Legaspi, Tacloban, and Leyte opened to commerce.

1874. Five hundred Moros from Sulu attacked the garrison in Balabac and were repulsed.

1875. Inauguration of the Bridge of Spain. Proclamation of Alfonso XII, King of Spain.

1876. The Philippines represented in the Exposition at Philadelphia. Conquest of Sulu. Construction of fortifications for the preservation of the conquered country.

1877. Moriones repressed usury; ordered the payment to collectors of tobacco tax the amount that was due them, convoked meeting of medical men to better the hygienic conditions of Sulu. An expedition under Gamir explored part of the island of Sulu.

1878. Inauguration of the waterworks system of Carricío. Moriones started on an expedition to the S. of the archipelago. The Sultan and the datos of Sulu signed articles of capitulation, acknowledging the rights of Spain.

1880. The committee of works of the port of Manila organized. Strong earthquake in Manila. Cable communication between Luzón and Spain established.

1881. Royal decree did away with the tobacco monopoly. By royal decree general inspection of communications was established. Expedition sent to Paulin to punish the Moros of Sulu. A garrison was reestablished at Siasi, Tataán, and Bengao, Sulu A. Tornado passed over Manila. Cholera in Zamboanga and in Manila. Savings' bank established, and the waterworks system initiated by Moriones inaugurated.

1883. The Philippines represented in the Exposition of Amsterdam. Reduction from 40 to 15 days in the work required by the state from each person, and the placing of a provisional tax of \$1.50 on each person. The general plan for railroads in Luzón was approved.

1884. Joyellar made a visit to the islands of the south; institution of the personal cedula. Reforms in the general direction of civil administration. Observatory of Manila declared official. Newly converted infidels in Mindanao made exempt from tribute for life.

1885. Danger of conflict between Spain and Germany in respect to sovereignty over the islands known as the Carolines.

1886. Termination of the conflict between Spain and Germany in regard to the Carolines and Palau, by arbitration of the Pope. Successful expedition against the Dato Uto. The Dato Harm visited Manila and was proclaimed sovereign of Sulu.

1887. Commencement of work on the railroad from Manila to Dagupan. Terrero began an expedition against the Dato Uto established on the Rio Grande, Mindanao; took position at Bacat, breaking the powerful influence of the Mono dato. Successful expedition to Maibitung, Sulu A. Destruction of the fort of the rebel sultan. Other successful expeditions to Tapul, Pata, Boal etc.

1888. The tramway from Manila to Malabón, Rizal, Luzón, inaugurated.

1889. Agricultural school established in Manila.

VII. CIVIL GOVERNMENT ESTABLISHED.

1890. The organization of ayuntamientos begun in the capital towns and provinces under civil government. The School of Practical and Professional Arts and Trades begun. Telephone system inaugurated in the Philippines. Defenses of Tuenrau, Mindanao, terminated.

1891. Inauguration of the railroad from Manila to Calumpit, Bulacán, Luzón. Campaign against the Moros of Lake Lanao. An expedition took possession of Fort Maribui. At Dagupan, in the province of Pangasinán, a college of the first class of secondary education was established.

1892. The railroad from Calumpit to Dagupan, Pangasinán, Luzón, inaugurated. Establishment of a higher normal school for (female) teachers. Celebration of the fourth centennial of Christopher Columbus.

1893. By royal order municipal laws in the provinces of Luzón and the Visayas were modified according to the reforms of Manila. In Sulu the Sultan Harun abdicated, and the Dato Amirul Quiram was proclaimed in his stead.

1894. Campaign against the Moros in N. Mindanao.

1895. Opening of the first regional exposition of the Philippines. Electric light was established in Manila. Larahui, of Lake Lanao, was captured. The first mission of the Benedictine friars arrived in the Philippines.

VIII. REVOLUTION AGAINST SPAIN.

1896. A revolution inaugurated. Conflicts took place in the vicinity of Manila. Publication of an amnesty. The rebellion extended to the neighboring provinces of Manila. Insurrections discovered and suppressed in Sulu and Palawan. In Iligan 2 companies of convicts rebelled and afterwards infested the towns N. of Mindanao. Reinforcements arrive from Spain. Inaction after the defeat of Noveleta, Cavite, Luzón, Blanco relieved. Polavieja began operations against the rebels in the military courts. Many Filipinos held as authors of the conspiracy were tried and executed, among them Rizal.

1897. A combined attack by 6 columns against the place known as Cacaroon de Sile broke the insurrection in the province of Bulacán. Fresh reinforcements arrived from Spain. The execution of Filipinos continued, and conflicts took place in the provinces of Manila, Bataan, Pampanga, and Batangas. Publication of an amnesty. Regiments of native volunteers were organized. The conquest of the province of Cavite begun. Silang, Dasmariñas, and Imus recovered. Another amnesty granted. Noveleta and San Francisco de Malabón taken by the Spaniards. Primo de Rivera made addresses to the people and to the army and began operations. Indang, Maragondón, taken. Publication of amnesty. Various garrisons were established. Negotiations instituted for peace treaty of Biac-nabato. Aguinaldo and various chiefs were deported to Hongkong, where Aguinaldo collected the \$400,000 on the cheek of the Hongkong Bank which was given him. Earthquakes in Mindanao and Sulu. Terrible tornado in Samar and Leyte.

1898. Uprisings in Luzón. The American squadron destroyed (May 1) the Spanish squadron in the bay of Manila. Blockade of Manila. Aguinaldo permitted to land at Cavite. Organization of the so-called advisory assembly of the Philippines and publication of a programme of autonomy. Uprising in the provinces of Luzón, and attack on defenseless Spaniards. Various garrisons fell into the power of the Tagalogs. A squadron under the command of Canara starts from Spain, but returns after having passed through the Suez Canal.

Aug. 12. Protocol of peace signed.

Aug. 13. The city of Manila surrendered. Americans entered Manila. Cessation of hostilities proclaimed.

Jundencz left for Spain. General Rizzo remaining in command.

Rios established in Illoilo, Pánuco. Continned the government of those islands where the Spanish flag still flew. A small Tagalog fleet was destroyed by Spanish gunboats.

IX. FROM THE TRANSFER OF SOVEREIGNTY TO THE UNITED STATES OF AMERICA.

Dec. 10. Treaty of peace between the United States of America and the Kingdom of Spain signed at Paris, by the terms of which the Philippine Archipelago ceased to belong to the Crown of Spain and passed under the jurisdiction of the former power. Rios ordered fortresses to be abandoned and troops concentrated in Zamboanga. From there he returned to Manila. [For military and civil events following see "United States military occupation and government and civil government," under general head "The Philippine (Archipelago) Islands," and "The Municipality of Manila."]

1899. Jun. 1. Rios arrived in Manila. Embarkation of Spanish troops for Spain. Rios returned to Spain, and General Jarauillo remained as president of the commission for the selection and transportation of material of war. Manuel Subsbrón, at the head of the commission, remained in charge of Spanish property in the Philippines.

Apr. 11. Treaty of peace proclaimed.

1900. Nov. 7. Treaty between the United States of America and Spain for the cession to the United States of any and all islands of the Philippine Archipelago lying outside of the line described in Article III of the treaty of peace of December 10, 1898.

1901. Mar. 23. Cession of outlying islands of the Philippines proclaimed.
[See the Philippine (Archipelago) Islands, also Provinces by name.]

THE MUNICIPALITY OF MANILA.

MANILA.

(Lat. $14^{\circ} 35' 31''$ N.; lon. $120^{\circ} 58' 08''$ E.). Time 8 hours, 3 minutes, 52.2 seconds E. of Greenwich (London), or 10 hours, 27 minutes, 55.66 seconds W. of Washington.

Area: 20 sq. m. to include limits of police jurisdiction on land, or 32 sq. m. to include the same on water.

Population: 297,152, estimated January, 1902; board of health census, 1901, gave 244,932.

Race: In the order of numbers, Tagálog, Spaniards, Half-breeds (Mestizos), Chinese, Americans, Europeans of all nationalities, and representatives of all the tribes and provinces of the archipelago; also from all parts of the Far East.

Language: English, Spanish, and Tagálog.

Military Division of the Philippines: Headquarters, Manila, Luzón.

Department North Philippines: Headquarters, Manila, Luzón.

Longitude: While Greenwich longitude is exclusively used in this Gazetteer, the following will enable differences to be computed from the many maps and charts of the Philippine Islands issued by other nations bearing their own longitudes:

	°	'	"
Greenwich (Observatory), England	0	0	0
Madrid (Observatory), Spain	3	41	21 W.
San Fernando (Observatory), Spain	6	12	24 W.
Paris (Observatory), France	2	20	14 E.
Berlin (Urania) (Observatory), Germany	13	36	53 E.
Ferro, the extreme SW. of the Canary Islands, the assumed dividing line between the E. and W. hemispheres	17	20	0 W.
WASHINGTON, D. C. (Observatory), United States	77	2	48 W.
Manila Cathedral, Luzón, Philippine Islands, United States	120	58	8 E.

LOCATION.

The city of Manila, capital of the United States possessions in E. Asia and the seat of military and civil administration in the Philippine Archipelago, is situated at the mouth of the Pásig River, the outlet of the great inland Laguna de Bay (Lake of Bay), on the E. shore of Manila Bay, 28 naut. m. and 32 stat. m. from its entrance. The geographical position of the city gives it superior advantages in the trade of the most densely populated quarter of the globe.

NAME AND FOUNDATION.

The aboriginal form of spelling "Manila" was "Maynila," also "Mainila," a Tagál word meaning a species of shrub or *bt. h* (in Spanish *arbusto*, a shrub) which grew on the site of the city when founded by Capt. Miguel Lopez de Legaspi and his band of conquistadores in 1571, and for that reason named Maynila or Bush Town. The proprietorship of the soil was conveyed by Lacandola, Rajah of Maynila and Matandá and Solimán, the chieftain in the neighborhood to Legaspi

in Pacto de Sangre (Compact of Blood). Grijalva, the Augustinian chronicler, gives the following account of this form of pact: "The ceremony is performed by extracting from the breast of those contracting friendship a small quantity of blood, which, mixed with some wine, is afterwards drunk in equal portions by the covenanters." It is not improbable that this same Grijalva was the Augustinian whose name is associated with the earliest exploration of our own California. (*Crónica del Orden, 1533-1592, México [Augustinian Convent], 1624.* From Zúñiga, II, 215.)

MODERN FACILITIES.

The city possesses modern facilities not excelled in the Far East. The streets are wide, and were so arranged by the founder as to have one side always in the shade. There are fine plazas, public squares, gardens, and promenades. About the middle of the eighteenth century, due to the beneficence of Carriero, a public-spirited private citizen, almost every street was furnished with its own standpipe for water supply, which remained in use until 1880. There are electric, telegraph, and telephone facilities within the city and suburbs, with connections to the remotest parts of the islands. A system of trolley lines extends to points within the municipal and suburban regions.

POPULATION.

A census taken by the board of health, completed about the 1st of May, 1901, gave the population of Manila 244,932, divided as follows: Filipinos, 181,361; Chinese, 51,567; Americans, 8,562; Spaniards, 2,382; other nationalities, 960. The figures do not include men belonging to the United States Army. There are 18,463 buildings in the city, of which 3,739 are good, 1,135 bad, 1,472 small, and 12,117 classed as shacks.

According to statistics of the board of health of Manila, the number of inhabitants in January, 1902, was:

Natives	218,900
Chinese	60,680
Foreigners	7,852
Americans	6,462
United States Army	3,260
Total	297,154

The population of Manila is made up of Americans and representatives of European nationalities, Spaniards predominating among the foreigners, and Filipinos, principally Tagálogs, Mestizos (half castes), Indians, Chinese, Malays, and a few from the S. islands of the archipelago, Japan, and India. This motley aggregation of humanity is assembled through the intercourse of trade and shipment. The city is not only the seat of insular government, but the center of foreign and domestic commerce, mercantile, financial, and professional activity, and mechanical industry. It is also the focus of the highest type of the social and intellectual life of the people of the archipelago.

The church at Manila was the second place of Christian worship in Malaysia, dedicated in 1571 as "Conversion of St. Paul, the apostle."

ARCHITECTURAL FEATURES.

The buildings for military, civil, religious, educational, and other public purposes are commodious, and in some instances possess no inconsiderable claims to architectural style. (See exhibit of public buildings in Manila and vicinity at the time of the occupation of the city and their present use, hereto appended.)

American possession is rapidly adding to the advantages already possessed to a degree which will rapidly make the United States colonial capital the finest city in the Far East.

BOUNDARIES.

The second section of the municipal charter established and prescribed in general the boundaries and limits of the city to begin at a point at the junction of Estero Vitás with Manila Bay at low-water mark in the NW. corner of Manila; thence extending by various courses and distances inland and around the city in a SE., S., and SW. direction to a point in the middle of Calle Marina; thence to low-water mark in Manila Bay S. of the city, and thence following the shore line of the said bay at low-water mark in a general NW. direction, a distance of about $\frac{1}{4}$ m., to the point of beginning. On or before the 13th day of December, 1901, the municipal board was required to investigate and fix what in its opinion should be the proper boundaries, with authority to include territory not then or previously a part of the city, and to make report to the Commission for further legislation. The following boundaries now constitute the city of Manila and also embrace the military post of the same name: Beginning at the Boca de Vitás, the line follows Maypajo Creek until it reaches the line of the Lico road produced, thence along said line and road to Lico, thence to the junction of the two roads in front of the Chinese Hospital, thence along the road in front of said hospital to the north corner of the hospital wall, thence to Blockhouse No. 4, thence by Blockhouses Nos. 5, 6, and 7 to San Juan del Monte Creek at the Aqueduct Bridge, thence down said creek and up the River Pásig to the mouth of Concordia Creek, thence by Concordia and Tripa de Gallinas creeks to a point opposite where road from Cingalong to Pineda (Pasay) turns sharply to the right, including Pasay cavalry barracks, thence by the road to Maitubig, and thence to the mouth of Malate Creek, comprising about 10 sq. m.

AREA.

The city proper is about 4,500 ft. (1 m.) from N. to S., and about 2,675 ft. ($\frac{1}{2}$ m.) from E. to W. within the walls (intramuros). The greatest width from E. to W. is about $4\frac{1}{2}$ m. from the mouth of the Pásig to the San Juan. The bay front (S.) is about 5 m. The corporate jurisdiction of the city for police purposes extends 3 m. from shore into Manila Bay and over a zone of 5 m., enveloping the city on the landward side. Area, 20 sq. m. with police zone on land and 12 sq. m. on water; total, 32 sq. m.

PHYSICAL FEATURES.

The city occupies part of the bay front of an extensive plain divided into 2 parts by the Pásig River outlet of Laguna de Bay. On either side of this important stream are numerous tributary channels afford-

ing means of transportation from the interior across the city to points of trade or tidewater shipment. A semicircle of mountains envelopes the plain inland and has a picturesque effect, viewed from the city. To the NE. rises the lofty summit of Angat; to the E. the volcanic range which takes its course down the central peninsula of Rizal. To the SE. in Cavite Province, is visible the conspicuous chain out of which rises the group of peaks known as the Twelve Apostles. Westward across the bay may be seen the Sierras de Mariveles of Bataán, upward of 4,000 ft. high, and to the NW. the cone of Mount Aráyat in Pampanga Province, 65 m. distant.

MANILA BAY.

The bay of Manila in physical characteristics, geographical position, and commercial advantages not only holds the first rank in the archipelago, but is without a rival in the Far East. It is situated approximately about the center of the coast of Luzón, and is large enough to accommodate the fleets of the world. Its greatest dimensions are from Tubutubu Island in the estuary of Orani, bay of Pampanga in the NW. angle of the shore of the greater bay, to Las Piñas, 35 m. near the boundary between Cavite and Rizal, and from the delta of the river Grande Pampanga on the shores of Bulacán in the NE. to Corregidor Island, SW. 31 m. It is 120 m. in circumference. The entrance in 2 channels between Pulo Munti point, Bataán, and Restinga point, Cavite is 12½ m. Its waters wash 5 provinces, Pampanga, Bulacán, Rizal, Cavite, and Bataán. It also receives 5 of the important rivers of the archipelago. The Grande de la Pampanga, Pásig, Orani, and Imus, all navigable streams. The port of Manila is a "roadstead," in all parts of which anehorage may be had. The bearing of the light on the end of the mole on the N. side of the entrance to the Pásig River with soundings is the guide to take an upper berth. An artificial port is being constructed.

During the SW. monsoon and the stormy period which accompanies the change of the monsoons, the "roads" of Manila are unsafe. The larger vessels find protection at Cavite, 7 m. below. All vessels under 300 tons can enter the Pásig, where they moor in rows.

MANILA LIGHTS.

The approach to Manila Bay from the China Sea is well lighted. Vessels from Hongkong and the ports of China to the NW. first sight the Capones Grande light off the SW. coast of Zambales. Vessels from ports of Indo-China first sight the Corregidor lights in the center. Vessels from Singapore, Java, India, and all the ports of the Philippine Islands, Borneo, and to the S., first sight the Cabra Island light. All converge on the Corregidor light at the bay entrance.

After leaving the Corregidor and Caballo islands lights the following are seen, approaching Manila:

MOUTH OF PÁSIG RIVER, N. side of quay, lat. $14^{\circ} 36' 18''$ N., lon. $120^{\circ} 56' 30''$ E.
One fixed light, red, 53 ft. above the sea, 49 ft. height of tower, visible 12 (stat.) m.; house, cylindrical tower, painted red; lantern and balcony, white; keeper's dwelling, near tower, painted red. A time ball, black, which is hoisted on the roof of the Manila Observatory at Ermita, is dropped daily at noon, one hundred and twentieth meridian (E. lon.), standard time. It is hoisted 5 minutes before noon and in case of failure is slowly lowered 5 minutes after the signal time. A gun is also fired from the battery of San Diego at the southeastern point of the

walled city. Storm signals are shown from the office of the captain of the port and from 3 masts just seaward of the fortress of Santiago near the mouth of Pásig River.

MANILA, W. mole, 1 fixed light, red. Tower 6 ft. high, visible $2\frac{1}{2}$ (stat.) m. Iron pedestal. This light is near the end of the breakwater now under construction and is moved out as the work progresses.

MANILA, on battery side of quay, mouth of Pásig River, lat. $14^{\circ} 36' 24''$ N., lon. $120^{\circ} 57' 18''$ E. Two fixed lights, electric, horizontal, 3 ft. apart; 16 ft. above the sea, visible 6 (stat.) m. A red light is shown from a beacon at the head of Pásig River to mark the entrance from Laguna de Bay to the river.

ST. NICHOLAS BANK, on the NW. head of the NW. of the 2 shoals forming those banks in Manila Bay, lat. $14^{\circ} 26' 25''$ N., lon. $120^{\circ} 45' 15''$ E. One flash light every minute, flashes 20 seconds, eclipse 40 seconds, electric; 34 ft. above the sea; height of tower 36 ft., visible 5 (stat.) m. Beacon, iron tower on base of concrete; tower black and white, in horizontal bands, balcony white.

MANILA FORTRESS.

The city of Manila is a fortress occupying the point of land on the S. side of the junction of the Pásig River and Manila Bay, having the former on its N. and the latter on its W. face. It is encircled by walls with bastions and bulwarks. Where it does not abut on the river is a moat, which by means of sluices may be flooded, thus completely isolating the city from the landward side. The bay, or W. face, measures about 5,000 ft.; the S. or landside toward Ermita, about 1,800 ft.; the W., about 500 ft. away from the river, 3,300 ft.; and the N., along the Pásig river, about 3,300 ft., making a total circuit of not quite $2\frac{1}{2}$ m. The walls are pierced by 6 gates, 3 to the N., on the road to the river Pásig, and 3 on the land side, which is the best fortified. Fort Santiago is the citadel and defends the entrance to the river and N. angle of the city. The area within the walls is laid out in streets intersecting at right angles. The main central thoroughfare, 2,000 ft. in length from N. to SW., is crossed at a right angle, midway in its course, by another 3,300 ft. in length, between the plaza of Santiago in the NW. and the bastion in the extreme SE. angle. The city within the walls is devoted exclusively to military, civil, religious, and other structures of a public character.

BUSINESS AND RESIDENTIAL DISTRICTS.

The river Pásig divides Manila into 2 parts, that on the S. being occupied by the military defenses and on the N. by the commercial, mercantile, manufacturing, and residential quarters and suburbs. Two parallel dikes for breakwaters define the entrance of the Pásig River from Manila Bay. At the water end of that on the N., which is 1,700 ft. long, is a light-house. That on the S., 2,000 ft. long, forms a promenade to the Monument of Anda, a patriotic judge and governor in Spanish history. About 200 ft. E. of the monument is Fort Santiago, on the S. side of the junction of the Pásig River and Manila Bay. After entering the Pásig River, which maintains a width of about 500 ft. in this portion of its course, and passing Fort Santiago, is reached the Paseo or promenade of Magallanes, on which stands an obelisk to the memory of the discoverer of the Philippines. At the E. end of this promenade a bridge connects with the Escolta in Binondo suburb. From this point following the stream the intervening space is occupied by barracks, the Quinta market, and military hospital, the latter facing on the Ward de la Concepción and a battery. Near this point the Pásig River makes a bend to the NE. until it receives the waters

of Laguna de Bay, while the walls of the city make a sharp trend to the SW. At the extreme W. angle, Avenue Santa Lucía extends NW. along the beach paralleling the fortifications and terminating at the monument to Anda. S. of the fortified city is Ermita, and beyond is Malate, famous for its embroideries, stretching along the shore of Manila Bay in the direction of Cavite.

SUBURBS.

Returning to the mouth of the Pásig on the right or N. side are the suburbs of Manila, among the attractions of the capital, and connected by means of fine bridges. The interlacing rivers, lagoons, and creeks and numerous islands and picturesque native dwellings give a peculiarly interesting effect. The city itself, with its bastions, batteries, church towers, white two storied balconied houses and cottages, reared on piles to escape the floods of the rainy season, and luxuriant groves of subtropical vegetation, has an oriental aspect.

Binondo, on the N. bank of the Pásig, opposite the fortified city, represents the domestic and foreign, commercial and mercantile activity of the Philippine Islands and is devoted to the central administration of revenue, finance, and trade. Some of its streets are paved and narrow. The houses are solidly built. At the Binondo end of the bridge from the fortress, a street called the Escolta, extending to the right and left, is lined with some fine buildings, conspicuously the banks, post-offices, shipping houses, hotels, also with the unpretentious shops and stalls of native traders, the thoroughfare itself being enlivened by a motley crowd of the mingling races of the Eastern world. Beyond the Escolta live the native, Chinese, Indian, and half-caste artisans, of divers handicrafts, as jewelers, goldsmiths, enamelers, painters, confectioners, etc.; also there are to be found the theaters, gambling houses, and other resorts for public amusement. In the NE. section is the church and convent of Binondo.

Prior to the earthquake of 1863 a handsome 10-arch stone bridge here crossed the Pásig. It was replaced in 1872 by a modern stone structure, which is the bridge of Spain or Puente de España.

The steamers and native craft engaged in trade with the bay provinces of Mórong, Cavite, Bataán, Pampanga, and Bulacán have their moorings along the banks of the Pásig within this suburb.

San Nicolás, at the mouth of the Pásig River, N. side, with Tondo on the N. and Binondo on the W. The works of the port property and dock, custom-house, and United States commissary stores are in this suburb.

Tondo, the most N. and populous suburb along the bay shore above the Pásig, is separated from Binondo on the S. by one of the numerous channels which traverse the level sandy surface and is connected by several bridges. The houses are generally constructed of cane and nipa, a species of palm with feathery leaves, now prohibited. The streets are narrow, most of its traffic being handled on the numerous natural canals formed of the small streams which enter the river and bay at this point and give it the appearance of an oriental Venice. The plaza of Philip II, in which there is a military building, is a fine open space almost surrounded by the natural channels. The station of the Manila and Dagupan R. R. is in this suburb. There is a fine church, convent, theater, market place, and cemetery. The inhabitants are largely engaged in tobacco and cigar industries, fishing, weaving, and gardening for the Manila market.

Santa Cruz, the suburb N. of Binondo, with a narrow frontage on the river, is divided into 15 wards. It is well built, and has a church, convent, flower market, theater, public jail, slaughterhouse, leper hospital (St. Lazare, under the Franciscans), and a cemetery for Chinese. It is noted for its artisans and handicrafts.

Quiapo, one of the suburbs along the Pásig River, N. of San Miguel Creek and E. of Santa Cruz. It is solidly built, with well-aligned streets and a fine market place well stocked. The Tribunal of the natives is a large structure. A suspension bridge 350 ft. long and 23 ft. wide spans the Pásig. The street of San Sebastián, with its porticoed native residences, is one of the attractions of this quarter. There is a church, convent, prison, and public jail.

San Miguel, the suburb E. of the city on the opposite side of the Pásig and connected with Quiapo by a bridge termed "de la Luinta." It is noted for the elegance of its residences. Along the river front are a number of villas, among them Malacañang, in Spanish times the residence of the captain-general in the Philippines and now the residence of the civil governor of the archipelago. There is also a church, convent, and barracks. On the island of San Andrés, 1,400 ft. in length and 400 ft. in width, in the Pásig, in front of San Miguel, is the convalescent hospital, San José Home, and insane asylum. On the N. of San Miguel is the ward San Sebastián, with a fine church and convent.

Sampáloc, a suburb with 39 wards, extends from San Miguel NW. It has a church, convent, and cemetery. Rivals San Miguel in being the residence part of the city. Calzada del Iris, the widest avenue and one of the handsomest in Manila, is located in Sampáloc.

Pandacan, in an arm of the Pásig River on the N. and E., the little rivers Cabitum forming part of the boundary, and Concordia on the S. and Pandacan on the W. The two former unite on the SW., and each has its own outlet into the Pásig, one on the N., the other on the E., which practically makes this suburb an island.

Trozo or **San José** (now forms a single district with Binondo) and another suburb within the municipal radius occupying the center of the NE. limit of the city between Tondo on the NW. and Santa Cruz and Sampáloc on the SE. It is largely occupied by the element engaged in mechanical industries. It has its market, place of popular diversion, and a few of the better class of residences of Chinese and natives.

Paco or **San Fernando de Dilao**, an extensive outlying suburb S. of the bend of the Pásig River, opposite San Miguel. It is connected across an intervening space by a number of thoroughfares leading to the city on the NW., Ermita on the W., and Malate on the SW., along the bay shore. It is also connected with Pandacan on the left bank of the Pásig River and through which it carries on the greater part of its trade with Manila on the one hand and the towns on Laguna de Bay on the other. Great cigar factories, the most prominent being those of "Compañía General de Tabacos" and "Germinal" and other industrial structures, are situated in this district.

Ermita and its adjoining town, Malate, on the S., occupies the bay front a short distance S. of the fortress. It is well built with houses of modern construction, and also is the seat of the observatory of Manila and normal school, which are well accommodated as to structures and equipment.

Malate, beyond Ermita, with fine villas and residences. Ermita and Malate are the favorite headquarters for American families.

ROADS AND COMMUNICATION, LAND.

A railroad in operation extends from Manila to Dagupan, on Lingayén Bay, from which point roads and trails connect with all parts of N. Luzón. An extensive inland traffic is also carried on by means of native craft via the Pásig River to towns and villages on the shores of Laguna de Bay. A system of land communication extends to the remote province of Sorso-gón, at the extreme SE. end of the peninsula of Luzón, traversing the provinces of Laguna, Batangas, Tayabas, Ambos Camarines, and Albay. A line of railway is projected on surveys from Dagupan, the present terminus, paralleling the China seacoast, to connect the capitals San Fernando of Unión and Vigan of Ilocos Sur with Láoag, the capital of Ilocos Norte, 152 m., and intermediate points, to within 35 m. of the extreme N. point of Luzón. Another surveyed route for a railway follows the course of the Pásig River, and thence the W., S., and SW. shores of Laguna de Bay, 55 m., to Santa Cruz, the capital of Laguna, with a branch leaving Calamba, about half the distance, on the lake shore, due S. to Batangas, 28 m., on the Verde Passage, the route of steamers between the United States and Manila, and thence to Lemery, on Balayán Bay, 15 m. to the NW. (For distance between Manila and the capital of each province or chief town or group of islands, see table of distances.)

COMMERCIAL ADVANTAGES.

The bay and city of Manila occupy a point of vantage in geographical position with reference to commercial intercourse with countries in eastern Asia, India, the eastern archipelago, Australasia, Oceanica, and the Pacific shores of the Western Hemisphere unrivaled by any city in Asia. It is the key to the trade of all the islands under the jurisdiction of the United States. It is also most favorably located for navigation in the surrounding seas with respect to favorable winds and currents, particularly so in reaching the W. coasts of the three Americas and the E. coast of Asia.

COMMUNICATION, WATER.

It has direct steam communication with Yokohama (1,630 m.), the metropolis of Japan; with Shanghai (1,080 m.), Tientsin (2,409 m.), and Canton (703 m.), the chief ports on the coast of China, and Hongkong (British, 628 m.), the present center of extensive commercial and financial activity in the Far East. It also has steam communication with Singapore (British, 1,386 m.), the center of trade of the Straits Settlements; with India, Calcutta (British, 3,016 m.), Madras, Bombay, and other ports; Batavia, Java (Dutch, 1,386 m.); with Port Darwin (British, 1,692 m.), on the N. coast, King Georges Sound (British, 3,792 m.), Adelaide (British, 3,772 m.), and Melbourne (British, 5,142 m.), on the S. coast; with Sydney (3,772 m.) and Brisbane (British, 3,292 m.), on the E. coast, the chief ports of Australia; with Aukland (British, 4,602 m.) and Wellington (British, 4,612 m.), in New Zealand, through the United States midocean station at Guam. It is in steam communication with Honolulu (United

States, 4,843 m.), the Midway Islands (3,808 m.), Caroline Islands (German, 2,326 m.), Pelew Islands (German, 1,020 m.), Solomon Islands (Ugi, British, 2,940 m.), Fiji Islands (British, 3,720 m.), Samoa Islands (Tutuila, United States, 4,603 m.), and Society Islands (Tahiti, French, 5,911 m.), the strategic points of steam intercourse in the Pacific, and through these centers with Valparaiso, in Chile (10,221 m.), Callao, Peru (10,212 m.), Panama (8,706 m.), Nicaragua Canal (proposed, 8,766 m.), Acapulco, Mexico (via Honolulu, 8,260 m.), and San Francisco (6,471 m., via Yokohama), and Port Townsend (5,920 m.) in the United States. (For distances by international steam routes, see pp. 129-131.) Manila is in communication with all the commercial ports of the archipelago by means of steam, sailing vessels, and native craft. But for the restrictive policy of centuries Manila to-day would undoubtedly be one of the great commercial marts of the vast continental and insular regions mentioned. Under the "open-door" policy of the United States it is destined in the near future to gain this supremacy and rival Shanghai, Hongkong, Singapore, Batavia, and Calcutta in the trade of the Orient.

INDUSTRIES.

The mechanical industries are extensive, the manufacture of tobacco, cigars, and cheroots, cord, rope, thread, and ice being prominent. Iron foundries and machine shops, sawmills, stonecutting, woodworking, and other mills are numerous and expanding.

COMMERCE AND TRADE.

Anchored in the roadstead are ships floating the flags of all nations, and within the river Pásig are moored steam, sailing, and native craft from every province and island in the archipelago. There are daily departures of steamers, mail or mercantile, for ports in Luzón, Mindoro, the Visayas, Mindanao, Sulu, and Palawan, and China, and bimonthly mail for Europe and Japan. The consular officers resident at Manila represent 19 of the maritime countries of the world.

UNITED STATES MILITARY OCCUPATION.

On April 21, 1898, Congress declared a state of war to exist with Spain. Two days later the United States consul at Manila was given his papers and left for Hongkong, where he joined the Asiatic squadron of the United States at Mirs Bay. On May 1 the United States squadron destroyed the Spanish fleet in Manila Bay. On the 3d Cavite arsenal, having been abandoned by the Spanish, was occupied by the forces from the squadron. On July 1 the military expeditionary forces of the United States landed at Cavite. On July 31 a night attack on the United States by Spanish troops in the trenches around Manila inaugurated a series of conflicts which culminated on August 13 in a bombardment of the Spanish intrenchments by the Navy and their capture by storm by the United States troops, which was followed by articles of capitulation and occupation of the city. The next day General Merritt issued his first proclamation to the Filipino people. On the 15th orders were issued for the assumption of civil government by the United States military authorities in the city of Manila and district of Cavite, and the necessary officers were

appointed. On August 16 the commanding general received a cablegram from the President of the United States announcing the signature of the protocol with Spain and the cessation of hostilities. From this point in the current of events Manila becomes part of the general history of the Philippine Islands.

HISTORY.

Although the Philippines were discovered in 1521 by Magellan, it was not until 1571 that Legaspi, having conquered Manila, then a village surrounded by a palisade, began the construction of a fortified city as a center for future warlike operations against the islands in the surrounding seas. A municipal form of government was established in the same year. From this seat of colonial authority Juan de Salcedo, the grandson of Legaspi, known as the "Cortes of the Philippines," conducted his discoveries, explorations, and conquests, besides repelling (1572) an invasion by the Chinese pirate Li Ma Hong with 5,000 followers.

In 1580 all the colonies of Portugal in the East, having fallen by conquest to the Crown of Spain, were governed from Manila and remained so until 1649, when they were restored.

In 1590 the present permanent fortifications were commenced.

In 1762 the city was seized by an English fleet and held for some months until the arrangement of peace, when it was returned to Spain.

In 1863, June 3, at 7.30 p. m., after a day of intense heat, while the people were preparing for the festival of Corpus Christi, the ground rocked violently for 30 seconds, the finest buildings crumbled, and many of the inhabitants were buried in the ruins. Over 400 persons were killed and 2,000 injured, 46 public and 570 private buildings were thrown to the ground, 28 public and 528 private structures were nearly destroyed, and the rest throughout the entire city were more or less injured.

Until the outbreak of the Spanish-American war the colonial authorities at Manila, representing the sovereignty at Madrid, exercised vice-regal sway.

MUNICIPAL GOVERNMENT.

On July 31, 1901, by enactment of the United States Philippine Commission (An act to incorporate the city of Manila), the inhabitants of Manila were constituted a municipality, to "be known as the city of Manila, and by that name to have perpetual succession and all the rights of property therein granted or theretofore enjoyed and possessed by the said city as organized under Spanish sovereignty."

DISTRIBUTION OF MUNICIPAL POWERS.

The government of the city is vested in a municipal board of 3 members appointed by the civil governor, by and with the consent of the commission, and removable in the same manner. One member must be designated as treasurer with power to act as provided by the charter. There is also a secretary and other officers whose general powers and duties are prescribed. The board is also possessed of certain legislative and executive authority, exercised, by general supervisory control, through five departments:

1. Engineering and public works.
2. Police.

3. Law.
4. Fires and building inspection.
5. Assessments and collections.

The charter, which is embodied in 72 sections, makes provisions for estimates and appropriations for the expenses of the city; the receipt and custody of money, auditing of accounts, sanitation, schools, defining the duties of officers under the various departments, assessments, taxation and collection, and for other purposes essential to municipal administration.

POLICE JURISDICTION.

The jurisdiction of the city for police purposes covers a distance of 3 m. from the shore into Manila Bay and over a zone of 5 m. in width surrounding the city on land.

INTERISLAND INTERCOURSE.

The political, administrative, and economic importance of keeping the capital and chief commercial port in touch with the remotest islands of the archipelago led to a conference between the military, naval, and civil officers and managers of insular transportation lines, who recommended a project of communication between the provincial capitals and coast towns, and to prevent smuggling, by means of a fleet of small steamers, 140 ft. length, 10 knots maximum, 8 knots ordinary draft, with searchlight and armament, to operate respectively in as many circuits, the average length of each of which being 651 m.; also a stern-wheel steamer, 2½ ft. draft, for service on the Cagayán from Aparri to Ilagan; another for service on the Rio Grande de Mindanao and lake system from Polloc inland. A bureau of navigation or operating office was also proposed.

MANILA PUBLIC BUILDINGS.

Exhibit of public buildings in Manila and vicinity at the time of the occupation of the city and their present use.

	Location.
BUILDINGS, MILITARY.	
1. Office of the major-general commanding.....	Within the walled city.
2. Office of the military government, subinspection of infantry, cavalry, guard, and carabineros.....	Do.
3. Office of the subinspection of artillery.....	Do.
4. Office of the subinspection of engineers.....	Do.
5. Artillery barracks.....	Do.
6. Cavalry barracks.....	Do.
7. Infantry Academy.....	Do.
8. Office of the military director.....	Do.
9. Workshops for the artillery.....	Do.
10. Workshop of engineers.....	Do.
11. Barracks of Malate.....	Malate.
12. Magazine of San Antonio de Abad.....	Do.
BUILDINGS, CIVIL.	
13. Palace of the governor and major-general commanding.....	Malacañang, San Miguel.
14. Audiencia (in ruins).....	Within the walled city.
15. Audiencia (temporary).....	Do.
16. Office of the General Government (temporary).....	Do.
17. General office of the civil administration.....	Do.
18. Intendance of the treasury (in ruins).....	Do.
19. Intendance of the treasury (temporary).....	Do.
20. Tribunal of accounts (in ruins).....	Do.
21. Tribunal of accounts (temporary).....	Do.
22. Philippine Spanish Bank.....	Binondo.

Exhibit of public buildings in Manila and vicinity at the time of the occupation of the city and their present use—Continued.

	Location.
BUILDINGS, CIVIL—continued.	
23. Office of civil government and city council, called the ayuntamiento.	Within the walled city.
24. Treasury.....	Do.
25. Custom-house.....	San Nicolas.
26. Custom-house (temporary).....	Do.
27. Hospital of San Juan de Dios.....	Within the walled city.
28. Observatory	Ermita.
29. (Telegraph) post-office	Binondo.
30. Mint	Within the walled city.
BUILDINGS, RELIGIOUS AND EDUCATIONAL.	
31. Cathedral (restored to the Roman Byzantine style).....	Within the walled city.
32. Archbishop's palace	Do.
33. Church and Convent of San Augustin, belonging to that religious order.	Do.
34. Church and Convent of St. Domingo, belonging to that religious order.	Do.
35. Church and Convent of San Francisco, belonging to that religious order.	Do.
36. Church of Recoletos of San Augustin	Do.
37. Church and college of the Jesuits, called the Ateneo Municipal, for boys, and providing an academic training. Since United States jurisdiction it has ceased to be municipal.	Do.
38. Church and College of Sta. Isabel, for girls, under the Sisters of St. Vincent.	Do.
39. Convent and College of Sta. Rosa, under the Sisters of St. Vincent..	Do.
40. Church and monastery of Sta. Clara, belonging to that religious order.	Do.
41. Municipal girls' school, now occupied by the American normal school.	Do.
42. Church and Convent of Sta. Catalina, in charge of the Dominican Sisters.	Do.
43. Church and seminary of the Jesuits (in ruins).....	Do.
44. Convent of the Jesuits.....	Do.
45. University	Do.
46. College of San Juan de Letrán, in charge of the Dominicans, an institution for primary and secondary education.	Do.
47. College of Medicine of San José.....	Do.
48. Convent and chapel of the Capuchinos	Do.
49. Convent and chapel of the Benedictines.....	Quiapo.
50. Church of the Third Order of St. Francis.....	Within the walled city.
51. Seminary of San Carlos, under the Paulist Fathers	Do.
52. Beaterio of the Society of Jesus, for women	Do.
53. College of the Concepcion or Concordia, for girls.....	Paco.
54. College of Loban, for girls, in charge of the Sisters of St. Vincent de Paul.	Do.
55. Military hospital	Malate.
56. Hospice of San Jose (insane asylum), under Sisters of Charity	San Miguel.
57. Leper hospital (San Lazaro).....	Santa Cruz.
58. Penitentiary (presidio)	Do.
59. Jail (Bilibid)	Do.

SUPPLEMENT.

COMMERCIAL EXTENSION IN THE PHILIPPINES, MAY, 1902.

The extension of facilities of intercourse between Manila and the United States of America via Japan, and China, and India, and Europe via Hongkong, has kept pace with the demands of commerce growing out of the pacification of the archipelago, the firm establishment of American sovereignty, and the exploitation and development of all branches of industry and trade.

STEAMSHIP LINES.

The Nippon Yusen Kaisha (Japan Mail Steamship Company), with a fleet of 70 steamers and a tonnage of 200,000 tons gross, has Manila connections, with return tickets issued by this company between Hongkong and Indo-China, available by the steamers of the China Navigation and the China and Manila Steamship companies. The Nippon Yusen Kaisha also maintains a regular line of steamers (which from Manila may connect at Hongkong) between Japan ports, Hongkong, Straits Settlements, Colombo, Port Said, Marseilles, London, and Antwerp fortnightly; also from Hongkong via Japan ports to Seattle, U. S. A., connecting at the latter port with the Great Northern Railway, service monthly.

The Hongkong-Manila service of this company is represented by some of the finest steamers in this class in Eastern waters, having displacements of 3,875 tons and upward. The United States mail lines offer direct service between Manila and San Francisco, via the Toyo Kisen Kaisha, Occidental and Oriental Steamship Company, and Pacific Steamship Company.

The British India Steam Navigation Company announces sailings from Manila to Singapore, Rangoon, Madras, and Calcutta, India, and Yokohama, Moji, and Kobe, Japan, every three weeks.

This international service has been attended by corresponding extension of interisland lines.

INTERISLAND COMMERCE.

The following partial list will convey in a measure the development of commercial activity which is going on by means of branch lines of steamers in the several entry districts of the archipelago:

Steamers cleared at the port of Cebú during January, 1902.

Name of port.	Province.	Island.	Name of port.	Province.	Island.
Bariil.....	Cebú.....	Cebú.....	Malitbog	Leyte.....	Leyte.
Baybay.....	Leyte.....	Leyte.	Manila.....	Luzón.	Mindanao.
Butuan.....	Surigao.....	Mindanao.	Misamis.....	Misamis.....	Misamis.
Cagayán.....	Misamis.....	Do.	Ormoc.....	Leyte.....	Leyte.
Calbayog.....	Misamis.....	Sámar.	Oroquieta.....	Misamis.....	Mindanao.
Camiguín.....	Misamis.....	Mindanao.	Palompón.....	Leyte.....	Leyte.
Carcar.....	Cebú.....	Cebú.	Panghao.....	Bohol.....	Bohol.
Dapitan.....	Mindanao.....	Mindanao.	Romblón.....	Romblón.....	Romblón.
Dumanague.....	Negros Oriental.....	Negros.	Sibonga.....	Cebú.....	Cebú.
Dumanjug.....	Cebú.....	Cebú.	Sorsogón.....	Sorsogón.....	Luzón.
Iligan.....	Mindanao.....	Mindanao.	Surigao.....	Surigao.....	Mindanao.
Iloilo.....	Iloilo.....	Panay.	Taeloban.....	Leyte.....	Leyte.
Jiménez.....	Misamis.....	Mindanao.	Tagbilaran.....	Bohol.....	Bohol.
Legaspi.....	Albay.....	Luzón.	Toledo.....	Cebú.....	Cebú.
Maasin.....	Leyte.....	Leyte.	Ubay	Bohol.....	Bohol.

Steamers cleared Iloilo district.

Entered.	Cleared.	Entered.	Cleared.
Bais.....	Bais.	Manila.....	Manila.
Bugason.....	Banate.	Pulopandan.....	Pulopandan.
Cápit.....	Cápit.	San Carlos.....	San Carlos.
Cuyo.....	Dunao.	San José de Buenavista.....	San José de Buenavista.
Danao.....	Escalante.	Silay	Silay.
Dumaguete.....	Estancia.		
Manapla.....	Manapla.		

NEW PORTS OPEN TO COASTWISE TRADE, BY COLLECTION DISTRICTS, PHILIPPINE ISLANDS.

CEBÚ PORT OF ENTRY, CEBÚ.

The following names represent coastwise ports in addition to list printed on page 107:

Name of port.	Province.	Island.	Name of port.	Province.	Island.
Baclayan.....	Bohol	Bohol.	Madridejos	Cebú	Mactan.
Bantayan Island.....	do		Majanay Island.....	Cebú	Cebú.
Bilangbilangan Island.....	do		Mandaue	Cebú	
Borbón.....	Cebú	Cebú.	Nanosnocaan Island.....	Bohol	Bohol.
Calituban Island.....	Bohol		Panglao	Leyte	Camotes Island.
Catmon	Cebú	Cebú.	Pilar	Cebú	
Córdoba	do	Mactan.	Poro	do	Do.
Gaos Island.....			San Francisco.....	do	Do.
Jinpstanan Island.....			Sogod	Cebú	Cebú.
Lilonn.....	Cebú	Cebú.	Talisay.....	do	Do.
Mabolo	do	Do.	Tuburan	do	Do.

ILOÍLO PORT OF ENTRY, PANAY.

The following coastwise ports are in addition to the list printed on page 108:

Name of port.	Province.	Island.	Name of port.	Province.	Island.
Bais	Negros Oriental	Negros.	Guimbal	Iloilo	Panay.
Barotac Nuevo	Iloilo	Panay.	Ilog	Negros Occidental.	Negros.
Binalbagan	Negros Occidental	Negros.	Manapla	do	Do.
Buruanga	Cápiz	Panay.	Miagao	Iloilo	Panay.
Cabancalan	Negros Occidental	Negros.	Pontevedra	Cápiz	Do.
Cádiz Nuevo	do	Do.	San Carlos	Negros Occidental.	Negros.
Calatrava	do	Do.	San Dionisio	Iloilo	Panay.
Concepción	Iloilo	Panay.	San Enrique	do	Do.
Dumangas	do	Do.	San Joaquín	do	Do.
Escalante	Negros Oriental	Negros.	Saravia	Negros Occidental.	Negros.
Ginigarah	Negros Occidental	Do.	Suay	do	Do.
Guimarás Island	Iloilo	Panay.	Valladolid	do	Do.
			Victorias	do	Do.

MANILA PORT OF ENTRY, LUZÓN.

The following coastwise ports are in addition to the list printed on page 108:

Name of port.	Province.	Island.	Name of port.	Province.	Island.
Masbate	Masbate	Masbate	Lagonoy	Ambos Camarines	Luzón.
Pinamalayan		Mindoro	San Jacinto	Masbate	Ticao.
Pitogo	Tayabas	Luzón	Santa María	Ilocos Sur	Luzón.
Canaan			Zambales	Zambales	Do.
Catanauan	Tayabas	Luzón	Tayabas	Tayabas	Do.

ZAMBOANGA PORT OF ENTRY, MINDANAO.

The following coastwise ports are in addition to the list printed on page 108:

Name of port.	Province.	Island.
Jasaan	Misamis	Mindanao.
Lapiniq	do	Do.
Mambajao (Camiguín Island)	Misamis	Do.

TYPHOON SIGNALS.

These warnings to commerce are displayed from the office of the captain of the port; day signals are shown from the pole near the wall and night signals from the three poles in the corral.

CORRECT TIME.

Time ball is dropped from the Observatory Ermita at noon Philippine standard time one hundred and twenty-first meridian east longitude. A gun is also fired at Fort Santiago.

HARBOR IMPROVEMENTS.

During the year 1902 the channel into the Pásig Riv. and as far as the Bridge of Spain will be dredged to a depth of 18 ft., which depth

it is proposed to maintain. The outer harbor will be materially changed by dredging operations during 1902 and the sea wall will be extended.

COMMERCE OF THE UNITED STATES WITH THE PHILIPPINE ISLANDS TO APRIL, 1902.

IMPORTS AND DOMESTIC EXPORTS, BY CUSTOMS DISTRICTS.

Customs districts.	Imports ten months ending April—		Domestic exports ten months ending April—	
	1901	1902	1901	1902
Baltimore, Md.	\$1			
Boston and Charlestown, Mass.	1,014,430	\$1,887,118		
Newport News, Va.		60		
New York, N. Y.	1,662,893	2,844,359	\$946,699	\$2,144,800
Norfolk and Portsmouth, Va.			103,251	169,374
Philadelphia	241,583	21,618		
Hawaii	13,936	2,264		5,485
Humboldt, Cal.				31,377
Oregon, Oreg.				454
Puget Sound, Wash.	3,262	1,380	1,273,215	647,035
San Diego, Cal.			24,375	1,377
San Francisco, Cal.	454,663	412,800	787,448	750,307
Willamette, Oreg.	140,071	333,242	29,472	503,532
Buffalo Creek, N. Y.		3,917		
Miami, Ohio		2		
North and South Dakota			243,032	76,998
Oswegatchie, N. Y.			2,302	1,521
Vermont, Vt.			201	
Cincinnati, Ohio	36	138		
St. Louis, Mo.	20			
Total	3,530,895	5,506,898	3,409,995	4,332,260

IMPORTS FROM THE PHILIPPINE ISLANDS, BY ARTICLES.

Articles.	Ten months ending April—			
	1901.		1902.	
	Quantities.	Values.	Quantities.	Values.
FREE OF DUTY.				
Articles the growth, etc., of the United States returned		\$4,751		\$2,310
Fibers, unmanufactured, manila	19,603	3,379,046	29,608	5,224,056
Fruits, including nuts		4,858		
Household and personal effects, etc.		611		1,417
Shells, unmanufactured		3,703		806
All other free articles				32,198
Total free of duty		3,392,969		5,260,787
SUBJECT TO DUTY.				
Bones and horns, manufactures of		262		206
Earthen, stone, and china ware, decorated		985		744
Fibers, manufactures of		599		321
Hats, bonnets, and hoods, composed of straw, etc.		4,741		42,317
Metals, metal compositions, and manufactures of				
I. & S.		488		1,250
Oils, vegetable, volatile		2,380		603
Silk, manufactured of		1,911		2,649
Sugar, cane, not above No. 16	4,693,333	103,857	11,424,000	188,159
Tobacco, cigars, etc.	24,719	14,390	5,021	6,585
Wood, manufactures of		1,086		1,044
All other dutiable articles		7,227		2,233
Total subject to duty		137,926		246,111
Total imports of merchandise		3,530,895		5,506,898
Brought in American vessels		119,574		57,274
Brought in foreign vessels		3,407,882		5,411,063
Brought in cars and other land vehicles		3,439		38,561

DOMESTIC EXPORTS TO THE PHILIPPINE ISLANDS, BY ARTICLES.

Articles.	Ten months ending April—			
	1901.		1902.	
	Quantities.	Values.	Quantities.	Values.
Agricultural implements		\$2,819	.....	\$12,791
Animals—horses and mules	2,753	232,660	.....	94,860
Books, maps, engravings, etchings, etc.		30,167	.....	416,396
Breadstuffs.		558,954	.....	83,299
Cars, carriages, other vehicles, and parts of		169,402	.....	47,332
Chemicals, drugs, dyes, and medicines.		30,533	.....	44,793
Clocks and watches.		12,311	.....	169,474
Coal	41,301	103,251	67,749	1,534
Copper and manufactures of.		5,552	.....	.....
Cotton, manufactures of:				
Cloths, colored	yards..	567,284	2,103,089	98,248
Cloths, uncolored	do..	312,972	208,080	18,208
All other.		9,978	.....	65,022
Total.		61,760	.....	181,478
Fish.		4,810	.....	60,814
Fruits and nuts		14,828	.....	24,818
Furniture of metal		5,276	.....	2,444
Glass and glassware		6,403	.....	22,601
Hay	tons..	13,454	256,627	19,134
India rubber, manufactures of.		10,284	.....	358,816
Instruments and apparatus for scientific purposes.		28,374	.....	41,617
Total.		382,216	.....	47,799
Iron and steel, and manufactures of:				
Sheets and plates.	pounds..	376,863	6,556	1,193,453
Builders' hardware, saws, and tools.			22,077	.....
Cutlery			8,234	.....
Machinery, machines, and parts of—				
Electrical			45,412	.....
Metal working.			11,656	27,788
Steam engines, and parts of.			10,832	2,473
Typewriting machines, and parts of.			22,775	23,037
All other.			87,753	74,456
Pipes and fittings.			37,878	315,259
Scales and balances			5,789	53,082
All other manufactures.			123,254	11,603
Total.			382,216	170,608
Total.			382,216	777,827
Lamps, chandeliers, etc		11,341	.....	13,981
Lead, and manufactures of		5,456	.....	34,196
Leather, and manufactures of		15,196	.....	96,815
Malt.	bushels..	12,850	9,744	13,525
Malt liquors:				
In bottles.	dozen quarts..	550,525	649,540	243,542
In other coverings	gallons..			361,061
Oilcloths.			10,231	.....
Oils—mineral, refined.	gallons..	1,247,843	119,413	1,691,810
Paints, pigments, and colors.			6,628	153,914
Paper, and manufactures of			46,752	16,154
Provisions, comprising meat and dairy products:				
Beef products.			3,859	216,506
Hog products.			12,350	37,716
All other meat products.			6,286	42,937
Dairy products.			18,243	6,999
Total.			40,738	23,808
Total.			40,738	111,455
Spirits, distilled.	proof gallons..	129,002	242,569	96,703
Soaps			10,169	142,327
Toys			11,206	10,592
Varnish	gallons..	4,949	5,584	17,704
Vegetables:				
Onions	bushels..	43,854	36,070	1,105
Potatoes	do..	208,777	131,403	22,810
All other.			17,789	19,376
Total.			185,262	27,389
Total.			185,262	48,265
Wine:				
In bottles.	dozen quarts..	2,358	9,947	4,124
In other coverings	gallons..	18,846	7,985	12,392
Total.			17,932	10,088
Total.			17,932	22,480

DOMESTIC EXPORTS TO THE PHILIPPINE ISLANDS, BY ARTICLES—Continued.

Articles.	Ten months ending April—			
	1901.		1902.	
	Quantities.	Values.	Quantities.	Values.
Wood, and manufactures of		\$37,800		\$399,196
All other articles		68,207		253,660
Total domestic exports	3,109,995			4,332,260
Carried in American vessels		357,519		112,877
Carried in foreign vessels		2,800,992		364,728
Carried in cars, etc		251,484		3,854,655

IMMIGRATION.

Among the immigrants arrived in the United States during the ten months ending April, 1901 and 1902, were the following from the Philippine Islands: 1901, males, 32; 1902, males, 107.

POSTAL SERVICE.

[See pages 18, 19.]

A list of post-offices equipped for the sale of stamped paper, and to handle ordinary and registered mail, also offices with money-order facilities; corrected to May 2, 1902.

Town.	Province.	Island.	Town.	Province.	Island.
Abucay	Bataán	Luzón.	Legaspi	Albay	Luzón.
Ángeles	Pampanga	Do.	Lingayén	Pangasinán	Do.
Aparri*	Cagayán	Do.	Lucena	Tayabas	Do.
Atimonan	Tayabas	Do.	Mabatang	Bataán	Do.
Bacolod*	Negros Occidental	Negros.	Malolos	Bulacán	Do.
Baguio*	Benguet	Luzón.	Manila*	Manila	Do.
Balutiga	Bataán	Do.	Masbate	Masbate	Masbate.
Baler	Príncipe	Do.	Misamis*	Misamis	Mindanao.
Bangued	Abra	Do.	Nueva Cáceres*	Ambos Camarines	Luzón.
Batangas*	Batangas	Do.	Olongapó*	Zambales	Do.
Bantista	Pangasinán	Do.	Orani	Bataán	Do.
Bayombong	Nueva Vizcaya	Do.	Oroquieta	do.	Do.
Bonc*	Marindíque	Marindíque	Pásig	Misamis	Mindanao.
Boronongan		Sámar.	Pilar	Rizal	Luzón.
Cabagan Nuevo	Isabela	Luzón.	Romblón	Bataán	Do.
Cagayán*	Misamis	Mindanao.	Rosario	Romblón	Romblón.
Calauit*	Laguna	Luzón.	Sámul	Cavite	Luzón.
Catbalogan*		Sámar.	San Fernando	Bataán	Do.
Cavite*	Cavite	Luzón.	San Fernando*	Pampanga	Do.
Cebú*	Cebú	Cebú.	San Fernando*	Unión	Do.
Cervantes	Lepanto	Luzón.	San Isidro*	Nueva Écija	Do.
Corregidor*	Manila Bay	Corregidor.	Santa Cruz*	Laguna	Do.
Cotabato*	Cotabato	Mindanao.	Sorsogón*	Sorsogón	Do.
Dagupan*	Pangasinán	Luzón.	Sulu (sec Joló)		
Dinalupihan	Bataán	Do.	Taal	Batangas	Do.
Imnaguete	Negros Oriental	Negros.	Tacloban*	Leyte	Leyte.
Hermosa	Bataán	Luzón.	Tagbilaran	Bohol	Bohol.
Ilagan	Isabela	Do.	Tanauan	Batangas	Luzón.
Joló*	Ililo	Panay.	Vigan*	Ilocos Sur	Do.
Joló (Sulu)*		Sámar.	Virac	Albay	Catanduanes
Luguan	Ilocos Norte	Luzón.	Zamboanga*	Zamboanga	Mindanao.

* Denotes money-order offices authorized to issue and pay money orders.

ORGANIZATION OF THE CIVIL GOVERNMENT OF THE PHILIPPINE ISLANDS, U. S. A.

January 1, 1902.

[Showing distribution of coordinate powers, arrangement of administrative departments and bureaus, provincial service, and courts of justice and justices of the peace, and title of chief officer respectively.]

LEGISLATIVE.

UNITED STATES PHILIPPINE COMMISSION.

President; Members, 4 Americans, 3 Filipinos.

EXECUTIVE.

Civil governor; vice civil governor.

EXECUTIVE BUREAU.

Executive secretary.

DEPARTMENT OF THE INTERIOR:

Office of the secretary,

Secretary of the interior.

Board of health of the Philippines,

President commissioner of health.

Bureau of health,

Commissioner of public health,

Quarantine service of the Marine-Hospital Corps.

Surgeon United States Marine-Hospital Service, chief quarantine officer.

Bureau of forestry,

Chief of bureau.

Bureau of mining,

Chief.

Bureau of agriculture,

Superintendent of government farm, San Ramón, Mindanao.

Weather bureau,

Director.

Bureau of nonchristian tribes,

Chief.

Bureau of public lands,

Chief.

Bureau of government laboratories,

Superintendent.

Bureau of patents, copyrights, and trade-marks.

Chief of the bureau of forestry in charge.

Philippine civil hospital,

Attending physicians and surgeons.

DEPARTMENT OF COMMERCE AND POLICE:

Office of the secretary,

Secretary of commerce and police.

Bureau of post-offices,

Director-general of posts.

Bureau of coast and geodetic survey,

Officer in charge.

Civil supply store,

Chief clerk.

Bureau of Philippine constabulary,

Chief.

Bureau of prisons,

Warden.

Bureau of coast guard and transportation and office of the captain of the port of

Manila,

Chief of bureau and captain of port.

DEPARTMENT OF FINANCE AND JUSTICE:

- Office of the secretary,
- Secretary of finance and justice.
- Bureau of insular treasury,
- Treasurer.
- Bureau of the insular auditor,
- Auditor.
- Bureau of customs and immigration,
- Manila, collector of customs for the Philippine Archipelago; Cebú, Iloílo, Joló (Sulu), Zamboanga, collector each; Siasi, deputy collector.
- Bureau of the cold storage and ice plant,
- Superintendent.
- Bureau of justice,
- Attorney-general.

DEPARTMENT OF PUBLIC INSTRUCTION:

- Office of the secretary,
- Secretary of public instruction.
- Bureau of public instruction,
- Office of the general superintendent.
- Bureau of statistics,
- Clerk.
- Bureau of archives,
- Chief.
- Bureau of public printing,
- Chief.
- Bureau of architecture and construction,
- Chief.

INDEPENDENT BUREAUS:

- Bureau of the insular purchasing agent,
- Insular purchasing agent.
- Philippine civil service board,
- Three members.
- Improvement of the Port of Manila,
- Officer in charge.

PROVINCIAL SERVICE.

The official personnel of each province, except where otherwise stated, consists of a governor, secretary, treasurer, and fiscal.

- Province of Abra, also delegate.
- Province of Albay, also inspector.
- Province of Ambos Camarines, also supervisor and delegate.
- Province of Antique, also supervisor.
- Province of Bataán, also supervisor and delegate.
- Province of Batangas, also inspector and 4 delegates.
- Province of Benguet, also governor, secretary, and supervisor.
- Province of Bohol, also delegate.
- Province of Bulacán, also supervisor and delegate.
- Province of Cagayán, also supervisor.
- Province of Cápit, deputy governor, also supervisor and deputy, treasurer and deputy, and 4 delegates.
- Province of Cavite, also supervisor and 6 delegates.
- Province of Cebú, governor, secretary, and supervisor.
- Province of Iloílo, also supervisor.
- Province of Ilocos Norte, also supervisor.
- Province of Ilocos Sur, also supervisor.
- Province of Isabela, also supervisor.
- Province of Leyte, also supervisor and 3 delegates.
- Province of Marinduque, also supervisor.
- Province of Masbate, also supervisor.
- Province of Misamis, also supervisor.
- Province of Negros Occidental, also supervisor and 5 delegates.
- Province of Negros Oriental, also supervisor and 3 delegates.
- Province of Nueva Écija, also supervisor and 4 delegates.
- Province of Pampanga, also supervisor and 3 delegates.
- Province of Pangasinán, also supervisor.
- Province of Rizal, also supervisor and 6 delegates.
- Province of Romblón, also supervisor and collector.

Province of Sorsogón, also supervisor and 6 delegates.
 Province of Surigao, also supervisor and 3 delegates.
 Province of Tárlac, also supervisor and 1 delegate.
 Province of Tayabas, also supervisor and 3 delegates.
 Province of Unión, also supervisor and 2 delegates.
 Province of Zambales, also supervisor and 1 delegate.

MUNICIPAL SERVICE OF MANILA:

Municipal board,

Three members.

Office of the disbursing officer,

Disbursing officer.

Office of the city assessor and collector,

City assessor and collector.

Department of engineering and public works,

City engineer of Manila.

Department of engineering and public construction,

Office of the superintendent of water supply and sewerage.

Office of superintendent of buildings and illuminations,

Superintendent.

Office of superintendent of streets, parks, bridges, docks, and wharves,

Superintendent.

Department of fires and building inspection,

Chief.

Office of the superintendent of city schools,

Superintendent.

Department of police,

Chief. Office of the chief of police, chief clerk.

Office of the sheriff,

Sheriff.

Office of the city attorney,

City attorney.

Office of the prosecuting attorney,

Prosecuting attorney.

MUNICIPAL COURTS:

District south of the Pasig, judge.

District north of Pasig, judge.

Justice of the peace courts,

Two justices of the peace.

JUDICIAL.**THE SUPREME COURT OF THE PHILIPPINE ISLANDS:**

One justice, six associate justices.

COURTS OF THE FIRST INSTANCE:

Judicial district of Manila, Luzón, judge.

First district (provinces of Ilocos Norte, Cagayán, Isabela, and Nueva Vizcaya, Luzón), judge.

Second district (provinces of Ilocos Sur, Abra, Bontoc, and Lepanto, Luzón), judge.

Third district (provinces of Unión, Benguet, Zambales, and Pangasinán, Luzón), judge.

Fourth district (provinces of Tárlac, Pampanga, and Nueva Écija, Luzón), judge.

Fifth district (provinces of Bulacán, Bataán, and Rizal, Luzón), judge.

Sixth district (provinces of Laguna, Cavite, Príncipe, Tayabas, Infanta, Luzón, and the island of Polillo), judge.

Seventh district (provinces of Batangas, Luzón; Marinduque, and Mindoro), judge.

Eighth district (provinces of Sorsogón, Albay, Ambos Camarines, Luzón; Masbate, and the island of Catanduanes, Visayas), judge.

Ninth district (provinces of Romblón and Cápiz, and Ilóilo, Panay) Visayas, judge.

Tenth district (provinces of Antique, Panay; Negros Occidental, and Negros Oriental, Visayas), judge.

Eleventh district (provinces of Cebú and Bohol, Visayas), judge.

Twelfth district (provinces of Sámar and Leyte, Visayas and Surigao, Mindanao), judge.

Thirteenth district (provinces of Misamis, Mindanao, the island of Basilan, and the districts of the island of Mindanao known as Zamboanga, Cotabato, and Dávao, and the comandancia of Dapitan).

Fourteenth district (the island of Paragua (Palawan), with its contiguous small islands, the Tawi Tawi and the Joló (Sulu) groups of the Sulu Archipelago, the Calamianes group, and the Cuyos group).

Justices of the peace and auxiliary justices of the peace.

Province.	Pueblos.	Justices.	Auxiliaries.	Island.
Abra	12	12	12	Luzón.
Albay	26	26	26	Do.
Ambos Camarines	29	29	28	Do.
Antique	21	17	18	Panay.
Basilan	1	1	1	Mindanao.
Bataán	11	10	11	Luzón.
Batangas	15	13	13	Do.
Bulacán	25	24	21	Do.
Cagayán	21	22	33	Do.
Cápit	33	31	25	Panay.
Cavite	20	19	18	Luzón.
Cebú	20	22	25	Cebú.
Cuyos	1	1	1	Cuyos Islands.
Dapitan	1	1	1	Mindanao.
Dávao	1	1	1	Do.
Ilocos Sur	23	21	23	Luzón.
Iloilo	49	45	46	Panay.
Isabela	13	13	13	Luzón.
Joló (Sulu)	1	1	1	Sulu Archipelago.
Laguna	23	21	13	Luzón.
Leyte	33	30	32	Leyte.
Marinduque	5	5	5	Marinduque.
Masbate	17	17	17	Masbate.
Misamis	20	17	20	Mindanao.
Nueva Ecija	18	18	14	Luzón.
Negros Occidental	34	34	32	Negros.
Negros Oriental	24	23	23	Do.
Pampanga	23	21	22	Luzón.
Pangasinán	34	34	33	Do.
Paragua (Palawan)	1	1	1	Palawan.
Rizal	30	28	30	Luzón.
Romblón	11	11	11	Romblón.
Surigao	33	33	33	Mindanao.
Sorsogón	13	13	10	Luzón.
Tárlac	17	16	16	Do.
Tayabas	22	21	18	Do.
Zambales	25	25	25	Do.
Zamboanga	1	1	1	Mindanao.

STATIONS OF UNITED STATES TROOPS IN THE PHILIPPINE ISLANDS.

[From the latest cable return received at the office of the Adjutant-General, U. S. A. Also see pages 141 to 146.]

Number of stations occupied May 10, 1902, 253, as follows:

Island.	Province.	Stations.	Force.
Luzón	Albay	2	3 troops.
	Ambos Camarines (see Camarines).		
	Bataán	1	1 company.
	Batangas	18	9 troops, 5 companies.
	Bulacán	3	2 companies.
	Cagayán	4	6 companies.
	Camarines (Ambos)	9	2 troops, 6 companies.
	Cavite	11	Do.
	Ilocos Norte, Ilocos Sur	7	12 troops.
	Laguna	25	12 troops, 9 companies.
	Isabela	8	6 companies.
	Nueva Ecija	5	4 companies.
	Pampanga	3	3 troops.
	Pangasinán	14	1 troop, 11 companies.
	Príncipe	1	1 company.
	Rizal	18	6 artillery, 2 engineers, 2 signal, 10 troops, 20 companies.
	Sorsogón	5	4 companies.
	Tárlac	4	Do.
	Tayabas	15	7 troops, 10 companies.
	Zambales	3	4 companies.
Total		156	

Island.	Province.	Stations.	Force
Bohol.....	Bohol	1	1 company.
Busuanga.....		1	Do.
Capul.....		1	Detachment.
Cebú.....	Cebú	1	1 engineer, 1 signal, 5 companies.
Joló (see Sulu Archipelago). Leyte.....	Leyte.....	7	5 companies.
Marinduque.....	Marinduque.....	3	3 companies.
Masbate.....	Masbate	1	2 companies.
Mindanao.....	Misamis and Surigao, civil..... Basilan..... Cotabato..... Dapitan..... Dávao..... Lanao..... Zamboanga.....	21	{ 1 artillery, 1 engineer, 8 troops, 22 companies.
Mindoro.....		6	6 companies.
Negros.....	Negros Oriental..... Negros Occidental.....	3	2 companies.
Panay.....	Antique..... Cápit..... Iloílo.....	6	4 troops, 4 companies.
Paragua (Palawan).....		2	1 company.
Romblón.....	Romblón	1	Do.
Sámar.....	Sámar	37	4 troops, 31 companies.
Sulu Archipelago: Joló (Sulu)..... Siasi..... Tawi Tawi.....		1	1 troop, 2 companies.
		1	1 company.
		1	Do.
Total		^a 97	

^a Sixth, Ninth, Nineteenth Infantry not included; assembling at Manila for shipment to United States of America.

RECAPITULATION.

Luzón, United States military stations.....	156
Marinduque, Visayan Islands, Mindoro, and Palawan.....	97

Total.....	253
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No troops stationed in provinces of Bontoc, Infanta, Lepanto, Nueva Vizcaya, or Príncipe, Luzón.

FILIPINO MUSIC.

National, patriotic, and typical airs of all lands by John Philip Sousa, Director United States Marine Band, by authority of the Secretary of the Navy.

ANG (THE) PANDANGUBAN. Introduction. Con brio. From the Spanish Fandango.

ANG BAYUHAN, Calmatto. Tune sung while hulling rice.

PALIMÓS. Tune sung by beggars when asking alms.

CUNDIMAN. Love song.

AUIT. Narrative story in music.

CUMINTANG.^a Love song, but more pathetic than the Cundiman.

VIRGOIRE.^a

BALINTA.^a

PASIÓN. Musical rendition of the gospel in Tagálog language.

TAGUELAYLAY. A more elaborate and pathetic variation of the Pasión.

DALIT. A still more pathetic rendition of the Pasión.

ZAPATEADO. Spanish dance.

BANTAYANUM.^a

JELE-JELE. Cradle song or lullaby.

HOLONA.^a

BALITAO. A native danza with gay, spirited music.

CABEQINGAX.^a

PARUPARUHAN.^a

TALINDAO.^a

The second Ang Bayuhan and third airs Ang Palimós of this collection are the favorites. The words are usually in Tagálog and vary according to the circumstances under which the songs are sung, have not been printed in words, but are preserved in music in the originals and in this collection.

^a These represent the typical airs of other races and islands of the archipelago.

These tunes are accompanied by the harp or guitar which are native modifications of western instruments. Those used in music not accompanied by the voice are made of bamboo or tin representing reed or brass instruments of western orchestras and are remarkably accurate considering their rude mechanism. There are excellent native bands equipped with modern western instruments.

EARTHQUAKES IN THE PHILIPPINES.

(Also see Volcanoes, pages 9, 10.)

The investigation of the phenomena of earthquakes and data in possession of the observatory of Manila relating to the Philippine Archipelago, shows the distribution of seismic areas as follows:

Very rare.—Negros, Cebú, and Bohol and adjacent islands, Visayas.

Rare.—Eastern Cagayán, Isabela, Nueva Vizcaya, Nueva Écija, Infanta, Polillo, Luzón; Sámar, southern Masbate, Sibuyán, Tablas, and adjacent islands, Biliran, Leyte, Panay, Panaón, Visayas; Dinábat, Siargao, and adjacent islands, Mindanao.

Somewhat frequent.—Western Cagayán, Abra, Bontoc, Ilocos Sur, Lepanto, Benguet, Unión, Pangasinán, western Nueva Écija, eastern Tárlac, central Bulacán, eastern Rizal, Laguna, Tayabas, Catanduanes, Luzón; Marinduque; Mindoro; northern Masbate, Visayas; Zamboanga, Dapitan, and Basilan, Mindanao.

Frequent.—Extreme western Cagayán, northern Abra, northern Ilocos Sur, southwestern Isabela, western Nueva Vizcaya and northern Nueva Écija, Zambales, northeastern shore of Manila bay and Laguna de Bay, western Rizal, Laguna, and Batangas, Verde Passage, central Ambos Camarines (Norte), southern Sorsogón, Luzón; Burias, Ticao, Visayas; Misamis, central Surigao, southern Cotabato, Dávao, Mindanao.

Very frequent.—Ilocos Norte, southern Zambales, Bataán, Cavite, western Laguna, Batangas, eastern Camarines Norte and Camarines Sur; Tayabas, Albay, northern Sorsogón, Luzón; eastern Suriago, both sides of the boundary between Surigao, Misamis, Dávao, and Cotabato, including the volcano of Apo, and extending along the western shore of Dávao Bay to point Sarangani, the extreme southern point of Dávao between Sarangani Bay and the Pacific coast on the east in Mindanao.

No data is given concerning the Sulu Archipelago and the chain of islands between Mindoro and Borneo, including Busuanga, Calamianes, Linapukan, Palawan, Balábac, and adjacent islands.

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